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Index to Volume II.

PAGE.

ACADEMIE L' —— des Etats Unis d'Amèrique. Dr. H. B. Adams...... 403
Adams, President C. K. College Fraternities.......................... 373
Adams, Dr. H. B. L'Academie des Etats Unis d'Amèrique............ 403
Admission Examinations, The Commission of Colleges in New England on 181
American University, The Development of the...................... 283
An Experiment that Failed....... .. 136
Arithmetic in the Boston Schools. Gen. Francis A. Walker................ 433
Associated Academic Principals, Membership of.. 40
Associated Academic Principals. Official Report of the Holiday Conference of 1886....................... 26
BRACKETT, Anna C. Teaching French.......................... 337
    Communications 422, 464
Bryn Mawr College.................. 154
Burgess, I. B. The Thought Element in Language Study................ 445
Burgess, T. C. College Fraternities.. 374
CAESAR as a First Latin Classic. Principal R. S. Keyser..... 353
Cæsar. Must Cæsar Go? Chas. W. Super............................ 462
Carpenter, William H. In the Matter of German Script.............. 80
Chemistry or Physics First; Which? James H. Shepard................. 117
✓ Clark, Minnie C. The Ministration of Literature...................... 357
Classical and High School Teachers, The Massachusets Association of... 177
Classical Education. Is Classical Education Practical Education? Prof. W. G. Hale...................... 203
Classical Texts, The Annotation of. B. L. D'Ooge..................... 97
College Admission Examinations; Report of the Comission of Colleges in New England.................. 69
College Fraternities.
    President James McCosh.
    President Julius H. Seelye.
    President C. K. Adams.
    T. C. Burgess.
    Prof. Oren Root............. 372
College Preparation and the Public Schools. Principal R. S. Keyser... 113
College Preparatory Latin. (Interchange)........................... 459
College Statistics................427, 470
Commission of Colleges in New England, Report of the............... 69

PAGE.

Communications. Anna C. Brackett. 422
    In the matter of German Script. William H. Carpenter....... 80
    Modern Language Teaching. Dr. Alphonse N. Van Daell.. 375
    Dr. William A. Mowry......... 182
    New York State Teachers' Association. Preliminary Announcement. George Griffith..................... 230
    The New York State Teachers' Association. George Griffith. 47
    George A. Williams........... 78
Cornell University, Mathematical Scholarships at.................. 160
D'OOGE, B. L. The Annotation of Classical Texts... 97
EGYPT, The Latin Question in...... 90
Examinations for State Certificates. List of Successful Candidates...... 378
FAMOUS Schools, Some. Rugby... 209
    A Swiss High School.......... 269
Franklin's Idea of an Academy...... 457
Frazer, W. H. The Curriculum of a French Lycee..................... 14
Free Text Books in Upper Schools. Samuel Thurber.................. 456
French Lycee, The Curriculum of a. W. H. Frazer. 14
French in High Schools, The Educational Value of the Study of. Dr. Alphonse N. Van Daell............ 164
French, Teaching. Anna C. Brackett. 337
French Verbs, The Principal Parts of. E. Spanhoofd..................... 170
GEOGRAPHY, The Science and the Art of. C. H. Thurber............ 173
German Pronunciation. E. Spanhoofd.............. 302
German Script, in the Matter of. William H. Carpenter................. 80
German University, At a. G. F. Howison... 315
Germany, History of Higher Instruction in. R. H. Quick............ 90
Germany, Some Phases of Secondary Education in. S. Thurber........ 1
Griffis, H. L. Should the Study of Physics Precede that of Chemistry? 121
Griffith, George. The New York State Teachers' Association.............. 47
Griffith, George. New York State Teachers' Association. Preliminary Announcements.................. 230
Gummere, Francis B. Poetry in the School Room................. 145
HALE, Prof. W. G. Is Classical Education Practical Education?....... 203

280350

PAGE.

Hale, Prof. W. G. The Teaching of Latin.......................... 18
Harrington, Henry F................ 136
Harrington, Henry F................ 334
Hart. Dr. A. B. A Brief List of General Readings in the History of the United States...................... 158
Hart, Dr. A. B. A List of General Readings in the History of the United States..................... 367
Hart, Dr. A. B. History in High and Preparatory Schools 256, 306
Herzen, M. A. Secondary Studies in Swiss Schools.................. 139
High School, A Swiss................ 269
High School, The Functions of the. Prof. W. H. Payne................ 398
✓ High School Course. The Order and Relation of Studies in the. Principal Samuel Thurber............... 241
History in High and Preparatory Schools. Dr. A. B. Hart..........
  I. How History is Taught 256
  II. How History May be Taught. 306
History of the United States. A Brief List of General Readings on the, Dr. A. B. Hart................158, 367
Holiday Conference of 1886, Official Report of......................... 26
Holiday Conference of 1887......... 421
Howison, G. H. At a German University.............................. 315
Humanistic Confession of Faith, A... 87
INCOMPATIBLES, The Struggle of. Prof. W. H. Payne................ 11
Interchange. College Fraternities... 372
  College Preparatory Latin..... 459
  Official Report of the Holiday Conference of 1886.......... 26
  Science Teaching in Secondary Schools.................82, 124
  The Legitimate Duties of a Principal................... 225
JOWETT, Dr. Jowett's Address.... 131
KEEP, Principal Robert Porter. Swedish Manual Training.............. 265
Keyser, Principal R. S. College Preparation and the Public Schools.... 113
Keyser, Principal R. S. Cæsar as a First Latin Classic. 353
Kinley, David. Communications..... 463
LANG, Henry R. The Teaching of Modern Languages................ 289
Language Study, The Thought Element in. I. B. Burgess........... 445
Latin Philology and the Teaching of Latin. Prof. E. P. Morris........ 193
Latin Question in Egypt, The....... 90
Latin, The Study of. I. Why. J. W. Mac Donald....................... 346
Latin, The Study of. II. How. J. W. Mac Donald.................... 413
Latin, The Teaching of. Prof. William G. Hale...................... 18
Lewis, Burr. Science Teaching in Secondary Schools................ 84
✓ Literature, A Ten Years' Course in. Principal William E. Mead........ 49
Literature, The Ministration of. Minnie C. Clark..................... 357
Lycee, The Curriculum of a French. W. H. Frazer...................... 14

PAGE.

McCOSH, President James. College Fraternities 372
Mac Donald, J. W. The Study of Latin. I. Why..................... 346
  II. How......................... 413
Manual Training, Swedish. Robert P. Keep......................... 265
Mathematical Scholarships at Cornell University, The 160
Mead, William E. A Ten Years' Course in Literature.................... 49
Modern Language Teaching, Aims and Methods in. Samuel Thurber. 385
Modern Language Teaching. Communications. Dr. A. Van Daell.... 375
Modern Languages, The Teaching of. Henry R. Lang.................. 289
Morris, Prof. E. P. Latin Philology and the Teaching of Latin........ 193
Mowry, Dr. William A. Communication.............................. 182
NATIONAL Educational Association. Announcement for 1887........... 89
Natural History in Secondary Schools. Dr. T. B. Stowell.................. 108
New York State Teachers' Association. Preliminary Announcements. Geo. Griffith.......................47, 230
OBJECTIVE Method, The Limitations of the. Dr. S. H. Peabody....... 138
PAYNE, Prof. W. H. The Functions of the High School................ 398
Payne, Prof. W. H. The Struggle of Incompatibles 11
Peabody, S. H. The Limitations of the Objective Method............. 138
Physics. Should the Study of Physics Precede that of Chemistry? H. L. Griffis....................... ... 121
Poetry in the School Room. Francis B. Gummere..................... 145
Principal, The Legitimate Duties of a 225
QUICK, R. H. History of Higher Instruction in Germany............. 90
RAPPELYE, W. G. Science Teaching in Secondary Schools 86
Regents Appropriation, January, 1887 42
Root, Prof. Oren. College Fraternities............ 374
Rugby.................................. 209
SCIENCE Teaching in Secondary Schools.......................82, 124
Secondary Education in Germany, Some Phases of. S. Thurber...... 1
Secondary Schools. What the Secondary Schools Ask of the Colleges. 133
Seelye, President Julius H. College Fraternities..................... 373
Shepard, James H. Chemistry or Physics First; Which?............ 117
Spanhoofd, E. German Pronunciation 302
Spanhoofd, E. The Principal Parts of French Verbs................. 170
Stowell, Dr. T. B. Natural History in Secondary Schools................ 108
Super, Chas. W. Communications... 262
Swedish Manual Training. Robert P. Keep........................... 265
Swiss High School, A................ 269
Swiss Schools, Manual Training in. M. A. Herzen.................... 133

PAGE.
THURBER, C. H. The Science and the Art of Geography 173
Thurber, Samuel. Aims and Methods in Modern Language Teaching 385
Thurber, Samuel. Some Phases of Secondary Education in Germany 1
Thurber, Samuel. The Order and Relation of Studies in the High School Course 241
Type-Writer in Schools, The 91
VAN DAELL, Dr. Alphonse N. Modern Language Teaching 375
Van Daell, Dr. Alphonse N. The Educational Value of the Study of French in High Schools 164
Volapuk. Is Volapuk a Dead Language? 223
WALKER, Francis A. Arithmetic in the Boston Schools 433
Williams, George A. Communications 78
YOUTHFUL Strength, The Economy of 175

BOOKS NOTICED.

PAGE.
ABBOTT, Evelyn. Easy Greek Reader 186
Amicis, Edmondo de. Cuore 286
Animal Life in the Sea and on the Land. Sarah Cooper 475
BAIN, Alexander. On Teaching English 336
Bainbridge, Elizabeth G. School-room Games and Exercises 95
Baldwin, Joseph. Elementary Psychology and Education 476
Bentley, Robert. Physiological Botany 140
Bert, Paul. Introductory Steps in Science 475
Billings, John D. Standard Selections 94
Botany, Physiological. Robert Bentley 140
Browning, Select Poems of. William J. Rolfe and Heloise Hersey 95
Buchheim, Emma S. Griechische Heroen-Geschichten 95
CHEMISTRY. A Guide to Elementary Chemistry for Beginners. LeRoy C. Cooley 140
Chemistry, The Elements of. Ira Remsen 286
Collar, W. C. Eysenbach's German Grammar 478
Conic Sections, Elements of the. Rufus B. Howland 190
Cooley, LeRoy C. A Guide to Elementary Chemistry for Beginners 140
Cooper, Sarah. Animal Life in the Sea and on the Land 475
Cuore. Edmondo de Amicis 286
DENTU, E. Sans Famille 287
EDUCATION, The Ruling Principle of Method Applied to. Antonio Rosmini Serbati. Translated by Mrs. William Grey 236
English History, Leading facts of. D. H. Montgomery 477
English. On Teaching English 336
Exercises in False Syntax and Other Forms of Bad English. H. I. Strang 382
Eysenbach's German Grammar. W. C. Collar 478
FISCHER, Dr. W. Gegen den Homer-Kultus in unseren Schulen 286
French Readings from Roman History. C. Colbeck 95
GARLANDA, Frederic. The Philosophy of Words 237
PAGE.
Geography, Maury's Physical 94
Geometry, The Elements of. Webster Wells 186
German. A German Grammar for Schools and Colleges. Edward S. Joynes 383
Gillespie, William M. A Treatise on Surveying 188
Goodell, Thomas D. The Greek in English 189
Greek. Easy Greek Reader. Evelyn Abbott 186
Greek. The Greek in English. Thos. D. Goodell 189
Griechische Heroen-Geschichten, Niebuhr. Emma S. Buchheim 95
HAILMANN, W. N. Primary Methods 474
Hale, Rev. E. E. Lights of Two Centuries 382
Health Lessons. Jerome Walker 432
Historical Atlas and General History, New. Robert H. Labberton 96
History. A Brief Compend of the History of the United States. Martin L. Smith 94
Holbrook, M. L. How to Strengthen the Memory 93
Homer-Kultus. Gegen den Homer-Kultus in unseren Schulen. Dr. W. Fischer 286
Howland, Rufus B. Elements of the Conic Sections 190
Hunt, Ezra. Principles of Hygiene for School and Home 96
Hygiene, Principles of. Ezra Hunt 96
INDUSTRIAL Education. Samuel G. Love 475
JOHONNOT, James. Stories of Our Country 382
Joynes, Edward S. A German Grammar for Schools and Colleges 383
KLINGHARDT, H. Das höhere Schulwesen Schwedens and dessen Reform in modernen Sinne 187
LABBERTON, Robert H. New Historical Atlas and General History 96
Laughlin, J. L. The Elements of Political Economy 479
Laurie, S. S. The Rise and Early Constitution of Universities 141

PAGE.

Lights of Two Centuries. Rev. E. E. Hale 382
Love, Samuel G. Industrial Education 475
MALOT, Hector. Sans Famille. E. Dentu 287
Maury's Physical Geography 94
Memory, How to Strengthen the. M. L. Holbrook 93
Montgomery, D. H. The Leading Facts of English History 477
NICHOLSON, Henry A. Text Book of Zoology for Junior Students 235
Niebuhr's Griechische Heroen-Geschichten. Emma S. Buchheim... 95
PHYSICAL Geography, Maury 94
Physiological Botany. Robert Bentley 140
Political Economy, The Elements of. J. Lawrence Laughlin 479
Primary Methods. W. N. Hailmann. 474
Psychology and Education, Elementary. Joseph Baldwin 476
REMSEN, Ira. The Elements of Chemistry 286
Rosmini. Antonio Rosmini Serbati. The Ruling Principle of Method Applied to Education. Translated by Mrs. William Grey 236
SANS FAMILLE. Par Hector Malot. E. Dentu 287

PAGE.

School-room Games and Exercises. Elizabeth G. Bainbridge 95
Schulwesen Schwedens, Das Höhere, und dessen Reform in modernen Sinne. H. Klinghardt 187
Science, Introductory Steps in. Paul Bert 475
Smith, Martin L. A Brief Compend of the History of the United States. 94
Standard Selections. John D. Billings 94
Stories of Our Country. James Johonnot 382
Strang, H. I. Exercises in False Syntax and Other Forms of Bad English 382
Surveying, A Treatise on. William M. Gillespie 188
TEACHING English, On. Alexander Bain 336
UNITED States, A Brief Compend of the History of the. Martin L. Smith 94
Universities, The Rise and Early Constitution of. S. S. Laurie 141
WALKER, Jerome. Health Lessons. 432
Wells, Webster. The Elements of Geometry 186
Words, The Philosophy of. Frederic Garlanda 237
ZOOLOGY. Text Book of Zoology for Junior Students. Henry A. Nicholson 235

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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SOME PHASES OF SECONDARY EDUCATION IN GERMANY.

PRINCIPAL S. THURBER, MILTON, MASS.

An untraveled American, if he reads German somewhat freely, has naturally formed his first impressions of the gymnasia from the official portraiture of these schools to be found in the great work of Wiese, and from the professional presentation of secondary school theory and practice given in the books of the gymnasiasts, Nägelsbach, Roth and Schrader. These first impressions he has naturally had confirmed by reading the books of such non-Germans as Matthew Arnold, Morgan Hart, Michel Bréal and Andrée Laurie, and such articles as those of President Adams and Professor Garnett, in THE ACADEMY. The inevitable conclusion from all these sources of information is that the gymnasia are excellent schools, which are rightly visited by inquiring foreigners from all lands, and that acquaintance with them is with good reason especially stimulating and inspiring to teachers from America.

Putting therefore above all question the perfect adjustment of the secondary schools of Germany to an ideal once clearly conceived in the thought of the nation and wholly satisfying to its spiritual aspirations, it is to be affirmed that this ideal has become unclear and unsatisfying, that the relation of the schools to the national consciousness has become confused, and that the gymnasia are no longer such institutions as the German people would establish, had it to organize its secondary education anew from the beginning. No visitor in the schools, no reader of their official reports and programmes, no reader even of their standard or classical literature, would necessarily perceive this falling off from them of the popular approval. This vicissitude of their history expresses itself in manifold ways; in the advice given to the Hungarian statesmen by Max Müller, not to establish schools like the gymnasia, but to leave out Greek; in new treatises on secondary pedagogy, like that of Clemens Nohl, demonstrating philosophically that the hour has come for greatly abridging the time given to the ancient languages; in fresh interpretations of the history of the upper education, like that of Professor Paulsen; in warm advocacy of the real schools as representing an interest apart from the gymnasia, like that of Professor Schmeding; in fierce denunciations of the pretentiousness of German "culture," like that of Christensen; in more temperate diagnoses of the malady that is wasting these schools, like that of "*Asmodi Redivivus*"; in wailing lamentations over the decline of classical studies, like that of Johannes Flach; in strong utterances hostile to the gymnasia by illustrious men of science, like Professors Esmarch, Haeckel and Carl Vogt; in occasional outbursts of discontent with the classical schools in the debates in the Prussian and other landtags, always followed by applause; in the newspapers and periodicals, and, above all, in the pedagogical journals, of Germany; in all the ways, in fine, in which any pervasive idea voices itself and shows its proportions.

The most important fact at the present moment with regard to German secondary schools, is their vigorous existence, with their foundations deep in the past, and in the respect and affection of the German people. This measures their power of resistance to change. The next fact in importance concerning these schools is the growing discontent with their aims and achievements, and the determination that they shall be changed, on the part of a large class of thinkers, who feel the *élan* of the reform spirit, and who claim that the future belongs to them. The number, the earnestness, the character and the social standing of these reformers, their faith in their cause, the justice of their demands, measure the likelihood of their winning adherents, so many and so powerful as to overcome the inertia of the gymnasia and to thrust classical studies from their position of time-honored supremacy.

To give an account of the gymnasia without recognizing the hostility to these schools that animates a large portion of the German people, would be like describing American slavery in 1850, without noticing the abolitionists, or American tariff-taxation, in 1887, without heeding the tariff-reformers. The gymnasia are indeed crowded to repletion. So accustomed are we to consider very full schools as altogether successful and as filling the measure of a perfect destiny, that we can hardly understand the misgivings felt by thoughtful Germans about this very tendency to crowd into the gymnasia and the universities.

This misgiving found official expression in the so-called *Schwedt* case. Schwedt is a little town near Berlin, possessing a *progymnasium*, i. e., a gymnasium without *prima*, the highest class. The Schwedters conceived the ambition to complete their school and so to become entitled to all the privileges reserved in Prussia for graduates from the full gymnasial course. They applied to the ministry at Berlin for the requisite permission, showing that they were financially able to carry out their desire, and would not ask the government for aid. They were refused permission to add *prima* to their already established five classes, and the government assigned the following reasons for its refusal: "The national government must hold fast to the principle of not permitting the establishment of schools with full courses, except in cases of demonstrable necessity, because an overproduction of gymnasial graduates has set in and the disproportion between the demand for young men prepared for university study, and the supply of such young men, has become twice as great as, for example, it is in Saxony, and the evil is already realized that a large portion of these classically trained youth can no longer find support. The national government must therefore strictly guard against increasing this evil by establishing new gymnasia, since every increase of these schools brings about an increase of this overproduction. Were the progymnasium in Schwedt completed, the communal representatives of Gartz and Schlawe, and perhaps those of many other provincial towns, would come forward with the same demand." We have here heard the Prussian government speak. The evidence is direct and unimpeachable, and must be digested with all other recent evidence that comes to us concerning the official way of viewing the gymnasia in Prussia.

The question comes up at once, why should the supply and the demand with regard to classically trained youth, any more than the supply and the demand with regard to commodities, come into such irrelation in any country. Why do not the hardships suffered by the excess of gymnasial men deter great numbers from seeking the same training, and so, in a short time, restore the equilibrium? The answer is not far to seek. The law of supply and demand, with respect to the higher education, is not allowed to go into effect. The gymnasia are artificially protected by their special privileges. They stand in a false relation to the needs and the possibilities of life. To gymnasial graduates alone are reserved by law the most attractive professional careers, and the right to unrestricted study at the universities. A German father deliberately cramps his boy's career by sending him to any other school than a gymnasium.

This special legislation in behalf of the gymnasia is of long standing, but the disposition to chafe under it is a more recent phenomenon. The *Berechtigungsfrage*, or the question of privileges, has of late figured as the title of articles and chapters in pedagogic and general periodical literature with a frequency that shows the question to be a vital one, that will insist on being answered. Evidently a new spirit is coming over the German people. They themselves call it "Americanism," and often deplore the ravages it makes in their ancient manners and theories. Perhaps there is more prospect that Germany will become, in some respects of education, Americanized than there is that America will become Germanized. Germany is more rapidly catching our freedom and *laissez-faire* in education, which she needs, than we are catching her thoroughness and patience, which we need.

One of the many anecdotes, perhaps apocryphal, told of the absent-minded theologian, August Neander, is to the effect that when he went to Berlin to enter upon his duties as professor, he was escorted to the scene of his future labors from his new home, which was very near the university, by a committee of persons who were anxious to show him something of the city, and accordingly took him by a long and circuitous route. Thereafter, for many years, Professor Neander went to his lectures by that route; and, in fact, beginning, in his age, to feel his long daily walk burdensome, he applied to the authorities for a nearer residence, and only had to be shown the shorter way to have his full desire gratified. Now the German route to liberal culture has been like Neander's long journey to his lecture-room; and the sensation that is beginning to be felt among German educationists is very much like what Neander must have experienced when he learned of the shorter way.

At present, for example, no one but a gymnasial abiturient, with his nine years of Latin and six of Greek behind him, can study medicine. By Prussian law no other training antecedent to professional study will suffice, and young intending doctors must acquiesce in this artificially imposed necessity. But with every year the utter obsoleteness of this requirement comes to be more generally recognized, the most illustrious voices of the nation are lifted in opposition to its further continuance, and it seems inevitable that a new step in

Americanization will soon be taken by giving common sense its rights in this important branch of upper education.

The discussion of the proper foundation for medical studies has been very instructive to any one desiring information about the results to the individual students of the long gymnasial years of so-called humanistic culture. Professor Esmarch, e. g., of Kiel, gives the results of his experience as member of a medical faculty in teaching young men who brought to him the fruits of gymnasial training. His conclusions are strongly adverse to almost every claim made by the humanists in behalf of their special schools. It is surprising to learn that criticism like that by Esmarch,—supported as it is by testimony of various kinds and from many quarters,—shows that the abiturients no longer, as a rule, possess a working knowledge of Greek and Latin.

The late George Ticknor, being in his youth a student at Göttingen, made there the acquaintance of Wolf, the famous Hellenist, then an old man enjoying the reputation which he had fairly won by the *Prolegomena* that had reconstructed Homeric criticism. Walking with Wolf one day, young Ticknor told him how Greek studies were flourishing in America, and mentioned, in illustration of his point, a fashionable clergyman whom he knew in New York, who was accustomed to read the choruses of Aeschylus without a dictionary. "He says that, does he," fiercely exclaimed Wolf, turning on his companion ; "the next time you see him, tell him he lies, and that I say so." The story shows how a profound Greek scholar regarded the ability to read Greek.

Wolf's surly reply to Mr. Ticknor expresses an opinion that is generally entertained among educators of all grades in Germany to-day. That is, long and severe as the gymnasial course is, and great as are the benefits which it is claimed to confer in the way of *formal culture*, it does not eventuate in the ability to read Greek and Latin. And this state of things, with the apologies often made for it, shows again, what has been referred to above, viz., the confused and uncertain nature of the classical idea as held by the German humanists. Interest in the classics began with the great Renaissance impulse in the times of Erasmus, Reuchlin and Melanchthon, Then the object of students was to read and understand, to admire and imitate, the ancient writings. The humanistic schools of to-day inherit the forms and phrases in which that impulse took concrete shape. These schools still observe the methods of procedure and utter the formulas of devotion and wonder which those times of intense earnestness have left them as a heritage. Gymnasial methods still imply a curiosity in the pupil to know what the ancient writers say and an eagerness to enjoy their beautiful manner of saying it.

Thus we find the cause of the classics defended in the phrases of ecstacy that were born amid the enthusiasm of the Renaissance. The fact that these phrases have become mere perfunctory repetitions does not hinder them from being perpetually brought forward to do duty as arguments. In this spirit Professor Palgrave writes,—and Professor Gildersleeve quotes him approvingly,—"To know Shakespeare and Milton is the pleasant and crowning consummation of knowing Homer and Aeschylus, Catullus and Virgil; and upon no other terms can we obtain it." That is, you cannot know Shakespeare and Milton without knowing Homer, Aeschylus, Catullus and Virgil. And certain Germans have insisted that only readers with Greek training could understand Schiller; a curious fact being that Schiller did not understand Greek.

Such ejaculations are of course exempt from criticism. They express an elevated mental state,—a vision, incommunicable in ordinary speech, of the interdependence of all knowledge,—a sense of nearness to the primal sources of spiritual strength. They are adduced here only that it may be said that the power to understand such mystic utterances, and the willingness to use them without understanding them, are plainly passing away. This is true of Germany, as of other countries; but the decay of the humanistic consciousness is more marked in Germany than elsewhere, because nowhere else has this consciousness so completely dominated the higher education.

A commonplace of the controversy now raging about the gymnasia is the citation for purposes of ridicule, of such sayings as this of Hillebrandt, in the *Deutsche Rundschau;* "A youth that had spent his eight years in a classical school, always the lowest in his class, listening with only half an ear and working with only half his force, would, in intellectual power, be superior to the most industrious pupil who should have gained only modern languages and special knowledge": or such as this, from the book of Director Axt on *Gymnasium and Real school;* "While the pupils of the Gymnasia may breathe the ambrosial fragrance of Olympian Jupiter, the real-scholar is compelled, with Vespasian, to find *bonum odorem in re qualibet.* I do not blame the real schools so long as they stay in their sphere; who despises the useful ox because he is not an Arabian steed?"

The only significant thing about such sayings is that they are quoted by the antagonists of their authors, and that in these last days their authors have nearly ceased to produce them, having evidently misjudged the kind of warfare suited to the case. In fact, silence seems to have become the accepted gymnasial policy, although, within a very short time, certain *rapprochements*, on the one side and the other, seem to foreshadow some issue of the classical controversy, not as yet definitely predictable.

Much of the discussion relating to secondary education in Europe during the past few years has centered about the question of the *overburdening* of gymnasial pupils. Indeed, the *Ueberbürdungsfrage* has been and still is even more urgent than the question of privileges. The excessive demands made by the gymnasia on the time and strength of their boys come home to the business and bosoms of families. The tender spot of the nation is touched. Complaints are made through the press. Conventions of gymnasial teachers and government officials are held for the express purpose of considering the case. Books are published on the subject, large, dry, tedious, exhaustive. Yet no relief is found. German loyalty to the humanistic idea is subjected to a strain that threatens to leave this loyalty seriously impaired.

The universality of the complaint on the part of parents, not only in Germany, but in other countries also, precludes the notion that it is groundless. The inability of teachers, while the programmes remain unchanged, to furnish more than the most superficial relief, shows that the trouble is not one of mere administrative methods. Teachers cannot understand how it is that, whereas in former days pupils are recorded to have learned to read the ancient authors, and to have actually read them with zeal, and whereas they certainly, having developed into writers, wrote in Latin, and in fact brought it to pass that all learned literature was in that language, they cannot now read the ancient books in the original, cannot be roused to admiration of these books, and, as they need not, so they cannot, write Latin ; and yet this apparently inferior achievement demands an exhausting outlay of mental power, of which the ancient days seem to have had no example.

Though modern studies have been crowded into the programmes, room for them has always been made without exceeding a measure of hours, reasonable according to the German standard, so that there is no outward and visible part of the gymnasial plan that would seem to be a possible scapegoat to bear the blame that the public charges upon the gymnasium generally. There is a pretty general opinion that such relief as can be had by omitting all the advanced Latin composition should be insisted on at any rate. But measures more radical than any small excisions here and there are likely to be demanded in the end.

A writer of some note, Johannes Flach, in a little book wherein he laments the decline of classical studies, and even goes so far as to proclaim that the abandonment of Greek means the *unmanning*, "*Entmannung*," of the German nation, expresses the opinion,—and Mr. Lowell and Dr. Mulford suggest the same idea,—that classical teaching is responsible for its own unsatisfactory results. This means that the old humanistic aim has become complicated with some of the phases of modern philological science. Flach even goes so far as to hint that the excellent modern grammars, of which the Greek grammar of Georg Curtius is a good representative, have had a dampening effect on classical studies.

The transition from the old humanism to the new and manifold science of philology has been going on, either without our full knowledge or without our full sympathy, thus bringing to pass what is suggested above, a confusion or clouding of our ideals. If our ideals are not single, why should not our achievement be scattered and enfeebled, and why should not our pupils be harassed by our cross-purposes and wearied with thankless tasks that promise no fruition?

Mr. Hill, of the Cambridge High School, with the sanction of the State of Massachusetts, announces that the object of studying Latin is to read Latin. This is humanism, of the days of Petrarch. If the youth of Massachusetts do not read Latin, they studied it in vain. Another fervent humanist of Massachusetts claims that pupils should be held more strenuously to Latin writing. This also is good doctrine according to the ancient standards. But now comes Professor Morris, also of Massachusetts,—and these domestic examples typify European conditions just as well as foreign ones would,—and squarely accepts the philological bias, which has been turning us all unconsciously from the strait path of classic culture, and would have us give up the attempt to read the ancient languages, and study these languages as the material of an all-important science, the science of philology. We are in the hands of a fate that is stronger than ourselves. This tyrannous fate has willed that even while using the language of the humanists, and still believing ourselves to be humanists, we have become philologists; and Professor Morris' thesis is that we should accept the inevitable, and let philology enter into all the ancient prescriptive rights and honors of humanism. *Per contra*, Professor Corson, of Cornell, emphatically denounces philology, and quotes strong language from ex-President White to the same effect.

Where, then, is our ideal? This is the trouble with secondary education in Europe. It no longer knows clearly what it is aiming at, and is but beginning to emancipate itself from medieval phrasing and to use the current intelligible categories of the modern world.

Out of the chaotic mass of European theorizing on secondary education is unmistakably evolving itself the conviction that classical studies, in their actual shape, are not worthy to be held longer in honor as the sole possible ground-work of liberal culture. They result in formal discipline, just as other, perhaps *any* other studies of equivalent difficulty would. They have not lost their value or their interest. What they have lost is their old prestige. They must hereafter take their chances, without special protection. And even thus their chance is splendid. The channels of old prepossessions, old habits, old tastes, are all worn in the direction of their trend. They will not die out. But if the men whose training has been classical are found to be specially helpless, when turned adrift upon the world, unless they can get a government appointment or an opportunity to teach the learning they have acquired ; if the men of classical training are redundant and unclassed among the world's workers,—that is, if they are *un*fitted by their education for that which society can offer them to do, then radical measures of reform must be inaugurated. If classical training proves to be, not a foundation for all liberal culture, but itself a special culture, fitting for one pursuit, or a few pursuits, the world will be honest with it, and will not allow the cry of Philistinism to hinder the next step in educational evolution.

It is of course unsafe to try to forecast the changes about to be realized in German secondary education. As to the main question, whether there will be any change at all, it may be remembered that changes in the gymnasial plan have already been made in the past, and that all recent changes have been in the direction in which more change is demanded now. It may be noted that the advocates of reform are very much in earnest, and that they are constantly winning adherents. Moreover, the gymnasial men are meeting the real-school men in conference, and the tenor of their debates is not, whether changes onght to be made or not, but how the inevitable changes should be carried out, with due regard both to existing conditions and to the objects to be attained.

Radical reform in education is, however, difficult to realize in Germany, because the educational system is there determined by national law, that is, by the legislation of the landtags, or parliaments of the several states. Americans know something, by observation or by hearsay, of the minute provisions of Prussian law and its rigid administration by a class of officials that constitute a veritable bureaucracy, proud of its honesty and its inflexibility. No educator but has sighed for some portion of the support which such an iron system gives to the government official that, in Prussia, even the humblest teacher is. But consider with what ease our colleges inaugurate and carry out reforms, and how near therefore to public opinion they are kept. Consider how Harvard has solved, for this present at least, the question of adjustment to public needs by the gradual adoption of elective studies. All this has been achieved quietly, without legislative interference. And our public high schools also have, within the scope of the very loose state law that controls them, a freedom that permits a curious and wholesome diversity.

But in Prussia all schools of the same name are alike, and have no individuality as regards organization and programme. So the question in Prussia is, when change is considered,—what one, single, vast system shall replace the given system. Nothing optional seems ever to be thought of. One school must be the best of all possible schools ; and if there is one best school for one city, this must also be the best school for all cities. The problem is seen to be immense. Legislators come to it reluctantly. Yet it must be faced in every German state. One would think it might occur to the Germans at last to do away with some portion of the law, and let the several municipal units of population work out their own salvation. But this will not happen in Germany for many years ; and meanwhile public sentiment must concrete itself, in order that legislators may see their way clearly.

The latest phase of the agitation for change in secondary education in Germany concerns the discussions that are centering about the idea of an *Einheitsschule*,—a single school to replace both the gymnasium and the real school. In this *Einheitsschule*,—all the disputants concede,—the ancient languages must be very greatly abridged. The modern languages and natural science must have more room. Writing in the ancient languages must be almost wholly abandoned. One difficulty, hard to settle, is the fate of Greek. If this single school has a nine years' course, shall a *Gabelung*, a forking, take place anywhere in it, so that it shall be, after all, a two-headed school, one head literary and lingual, and one scientific and real? And where shall this forking occur, if at all? But if such bifurcation takes place, it will be insisted that no special privileges attach to either course.

These are the questions agitating the school world of Germany to-day. How they are to be answered the immediate future will decide.

THE STRUGGLE OF INCOMPATIBLES.

PROF. W. H. PAYNE, ANN ARBOR, MICH.

The incompatibles I have in mind are extension and intension, particularly as exhibited in the courses of instruction for secondary schools. A glance at high school courses of study will show how multifarious the topics of instruction have become.

Normal progress in investigation and discovery makes extension inevitable. The ancient curriculum was very simple—grammar, logic, rhetoric, music, arithmetic, geometry, astronomy. The modern high school includes at least twice as many topics within a four years course. The curriculum has suffered successive invasions, graeco-roman, franco-prussian, anglo-saxon, scientific, metaphysical, and each new comer has become entrenched within the old domain. But this, it seems, is not enough. Manual training is now leading an assault, and modestly demands one half of the entire territory! What with keeping peace within, and resisting a new assault from without, the officer in charge leads a troubled life.

But this is only one phase of the actual case. Not only has the field of study been greatly extended, but the latest theory of instruction in vogue would make the student a specialist in each study, thus demanding a larger outlay in time in each topic. In short, the student must no longer learn chemistry at second hand, from a book, but he must *re-discover* chemical science. At least in theory, it will no longer answer to learn on faith in human testimony, that the atomic weight of nitrogen is 14, but this result must be reached by scientific experimentation. It is no longer permissible to learn physiology as literature, but the course of instruction must be *experimental*, through the dissection of cats, dogs, frogs, etc. At the bottom of this new theory of teaching there is the heresy that we know only what has the sanction of our personal experience, an assumption which makes a knowledge of the past and the unseen impossible. But in this place I am not concerned with this new phase of materialism, but with the new dilemma which confronts the teacher,—he must teach more subjects within a limited time, and by a new process that lengthens the time necessary for each. At an institute held in Canandaigua thirty years ago, Cornell Morey, of Macedon Academy, proposed to answer any scientific question in physics and chemistry that might be addressed to him. I recollect only one of these questions: "What would happen were an *irresistible* body to collide with an *immovable* body?" Mr. Morey did not describe what would happen, but his answer caused a collapse in that line of questions. The incompatibility is hardly less in the case I am discussing. If the extension of the course is to remain as it is, then the time to be devoted to each subject can not be lengthened. If the extension is to increase, then the methods employed must be more expeditious. On the other hand, if the new theory is to prevail as its advocates demand, then the curriculum must be reduced. Both movements cannot prevail.

In this new theory of teaching, there are at least three specious fallacies; one, that all knowledge is presentative; second, that the chief and highest aim of instruction is *discipline;* third, that the student is to be a specialist, a scientist.

Surely it is not necessary to argue that we know that America was discovered by Columbus, that there is such a city as London, etc., etc., and that we shall one day die. On this hypothesis all general knowledge, such as "the sum of the three angles of a triangle is equal to two right angles," is impossible, for this statement transcends the experience of any individual. The second fallacy is widely current, and current among the most thoughtful teachers. The disciplinary aim is certainly much higher than the useful-knowledge aim; but the man whose mind is the best disciplined is not on this account the best educated man. The mind should be trained, past all doubt, but it should also be *furnished*, furnished with knowledge for use, and also with knowledge which will yield contemplative delight. In mastering the mechanical principles which are embodied in the structure and the use of a steam engine, the mind is certainly disciplined in some degree; but when this mastery has once been made, the disciplinary process ceases. After this, when an engine is seen, no demand is made on the mind in the way of studious comprehension; but it will be viewed for the ten thousandth time with mental delight, because a complex aggregate, the agent of a tremendous power, appears to the mind as a delightsome recollection or reminiscence. The discipline terminates with the original mastery, the mental delight is perennial. I want to study the physics of the telephone, not because I may wish to make one, or even to repair one, nor yet because I am in search of mental discipline; but because I shall be in a state of mental surprise and unrest until I have learned to comprehend this latest mechanical mystery and marvel. As it seems to me, the value of science to the average student lies chiefly in this quarter.

The employment of specialists to teach the sciences in secondary schools has given currency to the fallacy that the only proper mode of teaching these subjects is by inductive, experimental research. The teacher has been trained in this manner, and since he was to be a specialist this was very proper; but when he comes to teach, he at once assumes that all his pupils are to be specialists, and here he falls into gross and dangerous error. For the present, the pupil in the secondary school needs to know the facts of science as they are correlated by natural law, and also, by means of typical examples or experiments, to be made acquainted with the general mode of scientific procedure; but for the purposes of a general education he need not play the rôle of original investigator. Farther on, when the time for specialization has come, he may very properly apply himself to inductive research. It is not teachers of science alone who have followed this false scent. I have seen masters and misses of twelve years sit in solemn critical judgment on Tennyson, Dickens, Hawthorne and Longfellow! For them a piece of literary art was not something to be admired and enjoyed, but a *specimen* to be dissected. Their teacher's ideal was the training of boys and girls to be literary critics.

The presupposition I am discussing becomes more legitimate in college work, but even here it often sadly misses its mark. Only a very small per cent of college students expect to become scientists, philologists, or specialists of any sort, but are in quest of a general education, one large factor in which is culture; and for the purposes of culture, the mind must be furnished with delectable stores, with knowledge which will yield contemplative delight. This is quite distinct from mere discipline, though presupposing discipline.

But shall pupils in secondary schools be excluded from all experimental study? By no means. In the main, they should gain an intellectual comprehension of principles, laws, phenomena and facts, through the interpretation of language just as they would gain a knowledge of any historical event; but for the purpose of giving a sense of reality to the study, they should do some typical work in the way of experiment, such as ascertaining the specific gravity of a given metal, as iron, or the preparation, storing, and use of some gas, as hydrogen. If the new theory be applied under these limitations, it will do a wholesome service and the extension of the curriculum will not be seriously disturbed.

THE CURRICULUM OF A FRENCH LYCEE.

BY W. H. FRASER, B.A., UPPER CANADA COLLEGE.

There has been and there is still on this side of the Atlantic, a good deal of confusion with regard to the terms, university, college, high school, grammar school, etc. Names are so misleading that we are apt to think that a German or French university corresponds to our own, and that the gymnasium and the lycée being the next grade of secondary educational institution under the university, they must necessarily correspond to our high school or collegiate institute. This is only true to a very limited extent. The university in Europe is concerned with the professional training of its students in the various faculties of medicine, law, etc., and affords also facilities for study and investigation, as far as possible in all other branches of higher learning. In fact the studies of the European university are nearly all such as we should call here *post graduate.* The only university in America with the European idea is Johns Hopkins, while Harvard seems trying to combine the gymnasium and the university proper. It is true that the curriculum of our universities goes further in some subjects than that of either gymnasium or lycée, with opportunities for specialization which are not afforded in them, but, speaking roughly, the course of the gymnasium or lycée is a little more than equal to our own High School and university pass courses combined. When the student has received his preparatory training in the lycée, he is ready to proceed with his education in law, medicine, science, or literature.

The word *lycée* itself, in its present application to the secondary colleges of France, dates back to Napoleon Bonaparte, and was given by him to them when he reorganized the university system. The name was afterwards changed to that of *college royal* at the Restoration and under Louis Phillipe, but was changed again to lycèe in 1848. Almost every considerable city and town in France has now its lycée, whilst in Paris there are several of them, e.g., Lycée Henry IV., Louis-le-Grand, St. Louis, etc., enormous establishments, affording accommodation to many hundreds of students, both *internes* and *externes*, as the students in residence and outsiders are respectively called. Until recently, only boys enjoyed the privileges of these colleges, but now provision has been made in several places, including Paris, for the education of girls also. These colleges are entirely distinct, and the programme of those for girls is in the main a modified form of that prepared for their brothers.

The whole course of the lycée should be completed, and generally is completed, by the pupil before he has reached his twenty-first year. It may be finished, however, by the eighteenth year. This is not astonishing, when we reflect that the pupil enters at an early age, that the sessions are long, and that he moves forward without break or interruption through a programme carefully weighed, measured and detailed beforehand. The class hours are now twenty a week as compared with twenty-four previous to 1884, a reduction owing to the fact that evidence of overwork had become apparent.

The whole work is divided into eight classes, numbering from eighth as the lowest up to second, which is followed by the Classe de Rhetorique and the Classe de Philosophie, not numbered. There is below the eighth a preparatory class, which is in its turn preceded by an elementary division of three classes. Thus the boy may enter very young, and may be promoted to the eighth class when he is nine years old. The work in the preparatory class consists of French together with German or English ; to these alone four hours out of the twenty are devoted ; also history, geography, and two hours a week for arithmetic, together with an hour each of object lesson and drawing. At nine years of age, then, the collegian is fairly launched upon his career. The number of hours devoted to his mother tongue is still the same—nine ; he has still four hours a week in English or German ; history takes an hour and a half, and geography the same ; arithmetic and object lessons take three hours, while drawing, as in the preparatory class, occupies an hour. The next year, if he has not failed at examinations, the pupil proceeds to the seventh class, and must be at least ten years old. In it the division of time to the various subjects is precisely the same, and, on contrasting the system at this stage with our own, a marked difference is observable :—more English language and literature, less history and geography, a great deal less arithmetic, and four hours a week devoted to French or German, which our children do not take up at all at that age, are changes which would require to be made in order to approximate our programme to that of a French lycée. It is not urged here that anything of the kind should be done ; the intention of the comparison is solely to make clear the difference between our system and theirs. Of course it might be argued that the boy's mind at ten years of age is more fitted for linguistic studies, and that he could with very great advantage acquire at that age the elements of grammar and the pronunciation of foreign living languages. But this by the way.

When our collegian is at least eleven years old, and in the sixth class, i.e., at least six years from the completion of his course, a marked change takes place in the subjects of study, and in the disposition of time. His native language drops at once to three hours a week; he has been exercised in it for years nearly half of the whole class time, and his style has been largely formed. Perhaps this early and thorough practical exercise in his mother tongue is a reason why almost every educated Frenchman can express himself in language always elegant, smooth and concise. What is lost by French and modern languages in the programme is gained by Latin, which rises at once to ten hours a week. History also gains an hour, arithmetic and science losing an hour, while drawing gains the time which they lose. Thus when the Latin grammar and "De Viris Illustribus Romæ" is begun, the boy is reading in English "Miss Edgeworth's Tales," "Evenings at Home," and "Miss Corner's History of England," or "Der Process," "Griechische Heroengeschichte," etc., in German, with exercises in reading and conversation. In arithmetic he is doing vulgar and decimal fractions, while in drawing, he is attempting architectural design and the human figure.

In the fifth class the hours are precisely the same until January, when Greek is begun, and to it two hours a week are devoted. The Latin has now got as far as the "Fables of Phædrus," "Cornelius Nepos," and the "Metamorphoses of Ovid." The Greek is elementary, but in English, Sir Walter Scott's "Tales of a Grandfather," and other works of similar difficulty stand side by side with Grimm's "Fairy Tales," Andersen's "Tales," and "Der Eigensinn" of Benedix. The history corresponds to the language studied, so that in this class Greek history is almost exclusively read. Arithmetic has got as far as the rule of three, and geometry is continued. An elementary course of botany balances a similar course of zoology in the preceding year.

In the fourth class only two hours are devoted to the mother tongue; Latin has six and Greek six hours; modern languages, history, science, (including mathematics), drawing, two each, and geography, one. French classical authors are read, Cæsar, Ovid and Virgil, in Latin, conjoined with Latin composition. In Greek Xenophon, Lucian and composition are done. Lessing, Musæus, Kotzebue and Hoffman with De Foe, Irving, etc., are read in German and English. Roman history is continued, while a course of geology replaces the botany of the preceding year.

At not less than fourteen years the third class is entered, and the work becomes heavy. In this class mathematical work increases, and has three hours assigned to it. Latin and Greek have each five hours, with modern languages about as before. It would be tedious to go into detail in all the classes; the principal difference to be noted in the development of the scheme in the next three years is the increasing attention given to mathematics, physics, and history.

At fifteen years, if the boy be clever, he is in the second class. After the completion of this year's work, the programme divides into Classe de Rhetorique and Classe de Philosophie. The French classics are continued in the second class, and the older French literature and philology are studied, together with the history of literature. Virgil, Horace, Cicero, Livy and Tacitus are read in Latin; and Homer, Euripides, Plato, Xenophon, and Plutarch in Greek. In the living languages pieces from Goethe, Schiller, Hauff, Shakespeare, Goldsmith, Walter Scott and Dickens, are read, and the mathematics go about as far as the end of quadratics.

As stated above, the course now divides into two classes. In the Classe de Rhetorique the languages prevail, while in the Classe de Philosophie, metaphysics, mathematics and the natural sciences prevail. A good idea of the proportion may be obtained from the time devoted to each subject. In the Classe de Rhetorique, French, Latin and Greek have each four hours; modern languages, history, two hours each; mathematics, etc., three hours and geography one. In the Classe de Philosophie, mental and moral science and logic, and the French authors occupy eight hours, Latin and Greek one, modern languages one, and history two; science, (including arithmetic, algebra, geometry, physiology), have eight hours. A fair idea of the difficulty of this year's work may be obtained by a glance at the authors in the Classe de Rhetorique. Nearly all the principal French classical authors are read; in Latin, Terence, Lucretius, Virgil, Horace, Cicero, Livy, Tacitus; in English and German, Shakespeare, Irving, Byron, Tennyson, Dickens and George Eliot, Lessing, Goethe and Schiller; a good deal of modern history is added, with plane and spherical geometry and some chemistry. It might be stated that two hours a week are devote d drawing, but that in the higher classes it is considered an extra.—*The Canada Educational Monthly.*

*THE TEACHING OF LATIN.**

BY WILLIAM GARDNER HALE, PROFESSOR OF LATIN IN CORNELL UNIVERSITY.

When the school and the college shall give the student such a grasp of Latin that it shall be to him a living language.†

The task of a reviewer is to assign justly praise and blame. It will be found that, in the nature of the case, the short paper which I have been asked to write performs properly but one of these two functions, and simulates the latter only in the form of the expression, at a few points, of the wish that Principal Peck's address had gone farther in the direction indicated by himself. One of these points, however, is of overwhelming consequence. At the end of my short review will be found, briefly put, my own suggestions upon it.

The interests of the schools and the colleges are identical. The foundation of the college is the preparatory school. It follows that a constant intercourse between the members of the "guild of scholars" in the colleges and the members of the same guild in the preparatory schools would naturally exist. In general, the only palpable contact between them is on the day of admission to college, the point of impingement being the young candidate, as he sits before his examination paper. That paper is a means of communication between college teacher and preparatory teacher in regard to their common interests, but it is a very one-sided means. It involves no expression of opinion from the other party in the case, no interchange of views upon methods and aims. Such interchange, if we may judge by probabilities and by perhaps a single notable instance in the past, that of the bringing of the method of "sight-reading" into the universal favor which it has secured, would be of a value difficult to overestimate; and for this reason such discussions of method from the point of view of the schools as are made accessible should be carefully followed and joined in by all college teachers whose work rests upon foundations laid for them in the preparation for admission.‡

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*A review of the address under the same name, delivered before the R. I. Institute of Instruction, by Principal Wm. T. Peck, of the Providence High School, and printed in the January number of THE ACADEMY.

†From Principal Peck's address.

‡ It follows that a journal like THE ACADEMY should find its constituency as well in the colleges as in the schools.

One thing more in this reciprocity of interest, (it may be said incidentally,) is greatly to be desired, and at the same time, on account of the engrossing life of the preparatory teacher, is less easy to hope for in a large degree in the near future, namely, the sentiment of a common interest in the scientific side of the subjects involved, manifested, in the schools as in the colleges, in the undertaking of investigations and in the watching and checking of the investigations of others. In a striking degree this exists in Germany. For our own country, the best that can now be claimed is that it exists in a slowly increasing degree.

Meanwhile, however, we are all interested in the practical question, What is going to become of the study of Latin and Greek? I, for one, am far from maintaining that the study of Latin and Greek, even as now conducted under very imperfect methods, is not of indispensable value. Nevertheless, it is clear that the feeling of distrust which has shown itself of late is greatly strengthened by the well founded belief that the years of study spent upon them yield very impalpable results, and, above all, do not yield the results of an acquaintance with the Greek and Roman literatures, or even the power of reading those literatures except by slow toil. It is by no means impossible, then, that, in this very practical-minded country, the ultimate fate of the study of the classics, for all but the fortunate few, may turn upon the answer finally given to the question, Is it possible really to *read* the classics, and, if so, how can it be done, and how can the art of doing it be taught? This is practically the question of Principal Peck's address; for anything that can rightly be said about Latin on this head is thereby said about Greek. Accepting gladly, therefore, the fundamental position of Principal Peck, that the main purpose of the work in Latin, in the preparatory school, should be to acquire the power of reading Latin, let us, firstly, see what he finds to be the actual state of affairs at present; secondly, let us consider the remedies which he proposes; and, lastly, let us determine whether something of supreme consequence does not still remain untouched by them.

On the first point, I quote Principal Peck's exact words:—

> "How few people learn the force of the inflectional endings! When they translate, they get out the meaning, after consulting the notes and dictionary, by putting together the English words in the way it seems best for them to go. An active or a passive ending, a mode or a tense sign, the mark of a dative or ablative, produces little effect upon the mind of the student. Yet how important this is. What appreciation can there be of the language without feeling the force of the inflections? To be able to do this, it is not enough to decline a noun or inflect a verb, however quickly. There must be such a drill of all forms *in sentences* that their signification shall be known and felt. A pupil who feels that the endings give additional

ideas to the words and understands them at once, is on the road to sight reading." (p. 383).

* * * "as I have considered the little grasp that pupils as a whole have of Latin." (p. 385).

All that must be true in the schools, for it is too true in the colleges. The patching-up of some kind of a meaning, with varying success, out of a number of English words suggested by the Latin words, is as high a mental process as can be counted upon from the average student until he has been subjected to some purifying procedure such as I shall speak of more fully in a moment.

Various remedies, all valuable, are proposed by Principal Peck. The first one, the dealing with grammatical rules only as connected with immediate practice, is in accordance with the present and final drift of the many books now published for beginners. The days of devouring the Latin grammar before digesting a Latin sentence,—days not farther back than the youth of men now living who will not confess to age,—are over. The second suggestion, a suggestion of very great value, is, unhappily, by no means in keeping with prevailing habits, namely, that the ear should assist in the training of the mind.

> "Should not ultimately the reading of Latin aloud be something more than a practice of the rules of pronouncing Latin? Ought not the ideas to be appreciated with the reading of the words? It seems to me that this aim is naturally set up from the requirement to read Latin at sight. We should train the ear from the beginning and should continue to train it. The exercises should be heard without the use of the book on the part of the scholar, not only from the English into Latin but from Latin into English. They should be so simple at first that they can be rendered at once, and the practice and drill should be such that the scholar, as he goes on, will have some power and freedom in the language. Care should be taken that they are not mere rote exercises, but the teacher should give innumerable sentences formed from the same words, both in English and Latin, to be translated at once without preparation. This will require ease in the use of the language on the part of the teacher." (p. 363.)

To this suggestion I say yes, with all possible fervor. For reasons which will be involved in what I have to say later, no other method, except a certain one which naturally goes with it, can compare with this for bringing about a "power and freedom in the language," a grasp of it as a direct means of conveying thought from mind to mind.

As regards the acquiring of a vocabulary, the address suggests that the pupil ought to be urged by his teacher not to look up words again and again, but to make a single looking-up answer, and that, to secure each new word as a permanent acquisition, exercises involving these new words as they occur should be framed from day to day. All this, of course, turns upon the personal enthusiasm and force of the teacher; but so does very nearly everything accomplished in the school-room in the early years of the child's intellectual training. That it should so depend is a serious difficulty. It is a pity that a thing of such supreme importance as the education of a human mind should turn upon anything less accurate and trusty than modern machinery. It is a sad thing that a mechanism does not exist capable of turning out a perfectly adjusted and accurately working mind. At the same time, in the very greatness of the responsibility lies the essential nobility of the profession of teaching. And the feeling of this responsibility should maintain the teacher's energy and vigilance in the small—and momentous—details of his daily work. Such energy and vigilance may be too much to expect from a young man who is reading law or medicine by the light of a lamp filled with the proceeds of the day's teaching, but it is not too much to expect of a man who has chosen the profession of teaching as the occupation of his life.

The address laments the want of time for reading at sight under the teacher's direction in the class-room, and states that, while the exercise is of the greatest importance, it seems impossible at present to do more than give an hour a week to it in the last year and a half out of the three which follow the finishing of the introductory book; and it expresses a similar regret in regard to the amount of time that can be given to the writing of Latin. I share the regret, but I do not believe, as Principal Peck would seem to do, that our only hope lies in a greater insistence, on the part of the colleges, upon ability to read at sight, and a yielding of something from the amount of reading prescribed. I believe the time given at present is ample for both purposes. My faith may be summed up in a very few words: Teach the boy really to read at sight—at one straight look through the sentence,—and he will not only be able to translate with success any passage set before him at his examination for admission to college, (whether new to him, or old and forgotten,) but will be able to read with such respectable rapidity during the latter part of his course as shall carry him honestly through the stated portions of Cæsar, Virgil, Ovid, and Cicero. And in expressing this belief I am brought to an important thing—a thing absolutely essential in the attempt to acquire, without an enormous waste of time, any real power of reading Latin.

Let us, approaching the whole problem anew, consider what this essential thing would naturally be. Our aim is, briefly stated, to learn to understand Latin in the easiest way. That easiest way must be, in the long run, a reproduction of the way in which the Roman himself understood it, as he heard it in the street or in his house. We *must*, in short, *make up our minds to accept the Roman method of* *understanding the Roman expression of thought, and not a whit less in the matter of the construction of the sentence as a whole than in the matters of vocabulary, inflections, and syntax.* The Roman took in the meaning of a speech in the forum or a story told by a friend at his dinner-table, not as we tell our poor boys to understand the very same Latin, directing them, first, to hunt up the main sentence (no matter if it be a half a page from the beginning), then in this main sentence to make a start by tracking out the subject and translating it, then to proceed to track out the verb and translate it, then to go back and discover the modifiers of the subject and translate them along with it, then, looking through the whole again, to discover the modifiers of the predicate and translate them along with it, then to select the most important of the subordinate sentences (by whatsoever method of divination), and in this sentence to repeat the process of piecemeal discovery enjoined for the main sentence, then to do the same thing for the subordinate sentence next in consequence, then for the next, and so on,—and, finally, to put all these *disiecta membra* together into something that shall have a semblance of organic life. This is—I speak with a very near approach to exactness—the process regularly taught in the books that teach anything at all upon the subject in starting a student upon his career in Latin. This is the best method that the study of thousands of teachers has succeeded in establishing for the understanding of the meaning of a Roman sentence. But it is not the method of the Roman forum and the Roman dinner-table. The Roman orator spoke his sentence straight through, from beginning to end, one word at a time, giving his hearers no opportunity to begin with his main sentence, unless he himself began with it, never turning upon his tracks to enable them, after discovering his verb, to go back and hunt up the modifiers of his subject, and then to go back again and collect, from beginning to end, the modifiers of his predicate. The Roman diner-out told his anecdote one word at a time, in the order in which we now find it. And in some way or other, *by indications somehow strown along the sentence*, the mass-meeting in the forum and the host at the dinner-table nevertheless understood! That was the ancient method. What, then, shall we say of the modern method? Why, simply that *it is the method of despair*. It assumes from the outset that the mind of to-day is not competent so to detect, while the Roman sentence moves steadily on, those indications of meaning which sufficed for the better-endowed Roman mind, and substitutes for the Roman way slow and painful processes, which could find no possible defence except upon a theory that they are the best of which an inferior age is capable.

My own teaching for years has proceeded upon a very different plan. I have believed that the modern mind could be brought to understand Latin suited to its particular point of advancement in a graded process precisely as the Roman mind understood it. The method employed under this spirit of hope may be succinctly stated in the general directions to the teacher: Being content for a time to move slowly, in the certainty of great speed by and by in the event of success, select a short Roman sentence and put it upon the board, one word at a time, asking your students, *as each new word is written*, what the Roman found in the place, the inflection, and the signification of that word to convey to him meaning—what light it threw backward upon so much of the sentence as was already past, what light it threw forward upon that part of the sentence which still remained—what indication of the speaker's thought, in short, the Roman found in one word and another, while the sentence moved steadily on, so entirely sufficient that, when the last word was spoken, the full idea of the speaker had been communicated to the hearer's mind. Guide the student through all this whenever he needs guidance. Unhappily, he will for some time need it in a large measure, for the absolutely reversed way in which, after the sentence is all over and its meaning has been "dug out" we deal with syntax in the exercise of belated parsing, leaves the pupil's mind very helpless when he is suddenly asked to apply his knowledge of these same methods of syntactical expression in the interpretation of the possible and the probable office in the sentence of a word *in situ*, with the rest of the sentence still unknown to him, except so far as he has surmised it from indications from which a Roman might likewise have surmised it. Avail yourself of the resources of the whole class, drawing out one point after another as you question listeners whose interest and attention are sure to be entire. Next put a piece of paper into the hands of each one of them, and, starting with a new sentence, and writing one word at a time upon the board as before, set at each word a formal question or succession of questions to be answered formally, but rapidly, upon the student's paper. Let the substance of each question be, What indication of meaning here for the word itself? what light thrown backward upon the words already past, the bearing of which was left in momentary suspense by the Roman way of thinking? what possibilities of construction to follow if the word is one that requires something else to complete its meaning, and that something else has not yet come? and is there, among these possible completing constructions, any one that you may fairly regard as probable? But let these questions be so framed, in the earlier days of the exercise, as to *suggest* to the young learner sound methods of thinking in the working out of the meaning of the sentence.

Then tell him to study out his next lesson by himself in the same way, guarding himself from looking ahead in the sentence by keeping the remainder always covered from sight as he moves on (a sheet of common note-paper can easily be cut to insure this), and to be prepared to rise in the class at the next meeting and tell everybody, rapidly, precisely how he did it. Let this go on for some time. Carry on, at frequent intervals, the exercise with which you began, of putting a sentence upon the board, one word at a time, with formal questions for terse written answers. After a few weeks, cease to write your sentence, but have the student write it *as you pronounce it*, one word at a time, with question and written answer, as before, the answers being placed below, while the Latin sentence constantly grows at the top of the paper. After a few weeks more, direct that there shall be no writing henceforth of the Latin words; but in all other respects conduct the exercise as before,—with the exception that, as certain kinds of indications of meaning in the individual word and in frequently recurring types of combination become familiar to your students, you will cease to ask questions on these points, going on through new ones introduced in the sentences chosen by you; until, in no very long time, you will have made your class familiar, from an entirely practical point of view, with all the commonly recurring constructions and types of combination. And you will find that, throughout this time, the method you have been using will have done as much as human art can to break up that sad inconsequence of mental processes to the existence of which Principal Peck bears witness. You will discover that "an active or a passive ending, a mode or a tense sign, the mark of a dative or an ablative, produces" an enormous "effect upon the mind of the student" who, in the exercises described above, has been required to tell for every word *when reached, and before advancing a step farther*, precisely what each one of these indications of meaning indicated. And—what is more, and, indeed, the spirit of the whole procedure—you will find that these graspings of indications of meaning, at first so slow and conscious, will become unconscious and rapid, so that, as you read aloud to your class longer and longer selections, the meaning of longer and longer passages will be carried straight to their minds (as once to the Roman mind) without the need of any questioning upon your part, and with no translation into English on their part. And you will feel the great satisfaction of knowing that your class is on the direct road, and the only possible direct road, to the reading of the Roman language as the people who wrote it read it, straight on without returning upon a word, with speed, and with pleasure.

Principal Peck's admirable suggestions, then, require to be carried farther by the taking of the step implicitly suggested by the whole spirit of his address to the Rhode Island Institute of Instruction. As it happens, an address proposing, though with much fuller detail than was possible in the present article, the method hinted at in the last few pages of this review, was delivered by the reviewer, under the title of THE ART OF READING LATIN, before the recent Holiday Conference of the body under whose auspices this journal is conducted. The address will be published shortly by Messrs. Ginn & Co., with a considerable supplement containing specimens of successive exercises such as are briefly hinted at above, and suggestions for the employment of the method when taken up, as it should be, on the day of the first lesson in the first Latin book. The interest in the address shown by the Associated Principals,—an interest greater than had been hoped for upon a first hearing,—warrants me in asking from the readers of THE ACADEMY, and especially from those who go with me in heartily accepting the tenets of Principal Peck's address, a consideration of the method as set forth in that pamphlet. *

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*It seemed fitting that the address delivered before the Conference of the Associated Academic Principals should be printed in THE ACADEMY. As it happened, an ar-arrangement to publish the method had already been made before the plan of first presenting it at the Syracuse Conference had occurred to the writer. Through the kindness of Messrs. Ginn & Co., however, we are enabled to send it, as a supplement to those readers of THE ACADEMY who may be presumed to be especially interested in the teaching of Latin.—[EDITOR.]

INTERCHANGE.

Communications upon any inside-school topic may be addressed to G. R. Cutting, Auburn, N. Y. *The subject for March will be: Science Teaching in Secondary Schools.*

OFFICIAL REPORT OF SECOND HOLIDAY CONFERENCE OF ASSOCIATED ACADEMIC PRINCIPALS OF THE STATE OF NEW YORK, AT SYRACUSE, N. Y., DECEMBER 28, 29, 1886.

MORNING SESSION.

The Second Holiday Conference of the Associated Principals of the State of New York, was called to order at 10 A. M., Tuesday, December 28, at the High School building in Syracuse, by President G. R. Cutting, of Auburn.

Rev. George B. Spalding, of the First Presbyterian Church, Syracuse, invoked the divine blessing.

The President said that it was with mingled feelings of sadness and congratulation that he called the conference to order. As he looked over the assembled principals, he missed the faces of some, especially that of Dr. J. Dorman Steele. The eloquent words of Dr. Steele to his associate teachers at the last holiday conference seemed a prophecy of his departure. The president congratulated the principals that the association, an experiment one year ago, was now an established institution.

The keynote of this conference as defined by the constitution should be, first, the interests of the secondary schools of the State; and, second, a closer acquaintance of the principals. He hoped the discussions would be informal and include methods rather than theories.

The treasurer's report was accepted and ordered placed on file. The reading of the minutes of the meeting in 1885 was omitted since they had been published. It was voted that a committee on nomination of officers for 1887 be appointed by the chair. Principals F. J. Cheney, of Kingston Free Academy, A. M. Wright, of Waterville Union School and Academy, and P. M. Hull of Waverly Union School were appointed as such committee.

On motion President Cutting appointed as committee on resolutions, Principals D. C. Farr, of Glens Falls, O. D. Robinson, of Albany and E. R. Payson, of Binghamton High School.

Dr. George A. Bacon, of the Syracuse High School, as chairman of the executive committee, proposed as the first subject for discussion, "The Mutual Relations of Colleges and Academies." The executive committee of the university convocation had recommended that the conference of college presidents be abandoned; and that there shall be put in its place in July, 1887, a conference of the representatives of the Colleges and Associated Principals.

Professor Oren Root, of Hamilton College, Chairman of the Executive Committee of the Regents' Convocation, thought the subject as here presented was too broad for any practical good to result; but it possessed phases which were worthy of discussion—many of them being of a subtle character. The main thing was the point of contact—from the teachers' or the scholars' side. It is not an easy thing to bring together the colleges and the academies of a great state—even though they are under a Board of Regents. The state of Michigan has an ideal system, yet all the institutions in that State are not in line. It has seemed to me that it was worth while to bring together the two classes of thought, and thus more thoroughly organize this point of contact, where the pupil leaves the secondary for the higher schools of learning. He hoped that as the result of this gathering, a formulated statement of what the principals thought they had a right to ask from the colleges would be presented, and thus strengthen and more thoroughly organize the work. Tell us what we can do to help you. It may not be accomplished this year or the next, and may run through a decade. Let us get what practical good we can out of this matter.

Principal E. H. Cook, of the Normal School thought there should be a minimum standard on which students should be admitted to all colleges in the State. Now a student could enter one college two years before he could pass the requisite examinations for admission to another. He hoped the discussion would develop a plane of contact on which the college and academy could meet.

Principal O. D. Robinson, of the Albany High School said that this was a subject which had occupied his attention. The college preparatory course at Albany would admit to any college, but he had found that students could enter some colleges in New York more easily than others. We need uniformity in the entrance examinations and the Board of Regents is the medium through which this can be reached. He suggested that all papers relating to college entrance be prepared by a joint committee from the professors of the colleges and the principals of the academies. He believed that these papers must now be prepared by ex-ministers and ex-principals. Some examinations were too difficult and some too easy. "Let every paper that comes from the Regents' office be one that the colleges will accept."

Principal D. C. Farr, of Glens Falls, said that the Regents' examination papers were made out by the best men in the State; that the papers were uniform and compared favorably with the entrance examination papers at Amherst, Yale and other Eastern colleges. The trouble is that colleges admit students who can not obtain the Regents' Diploma or graduate from our academies. The boy who can pass the Regents' College Entrance Examinations, as now conducted, is ready to enter any college in the country. If any one can frame a better course of study than that furnished by the Regents of the University of New York, he would like to see it.

Principal F. J. Cheney of Kingston, said all were agreed on the question that the colleges should have a uniform standard of admission ; but let the colleges keep to this standard of admission. He knew that some colleges admitted students to certain courses with far less preparation than to others ; hence young men would often take the course which required the least preparation. The Regents should be the medium through which a uniform standard could be secured.

Dr. Bacon maintained that the Regents' Diploma would be accepted as an entrance certificate by most colleges in this State.

Dr. C. H. Verrill, of the Delaware Literary Institute said : "If you want to get at the real point of contact the colleges must lead off and 'nominate in the bond' just what they want."

President C. K. Adams, of Cornell University, assured the conference that no question could be proposed of more interest to himself. He had deferred the action of the faculty of Cornell University, relative to accepting Regents' pass cards in entrance examinations, until he had heard the discussion of this question by the Associated Principals. His work had formerly been in a state where intimate relations existed between the colleges and the academies. In Michigan, great help was given to each department of schools by this mutual relation. This he felt to be a want in New York State. Cornell University would be glad to have these relations strengthened. He thought he found in the Regents' Examinations a means of fixing a uniform standard of admission to colleges. The question was how far Regents' pass cards should be received, and also what authority should be given to certificates of qualification from principals of the secondary schools. The number of students who applied for admission to Cornell University at the last entrance examination was phenomenally large, and we have had to exclude and drop from the classes, only last week, thirty-three students who will have to go back to the secondary schools for another year. A large percentage of these came with certificates of qualification from the academies of the State. Many students cannot pass their examinations at the close of the first college term, especially in Greek. After this year, solid Geometry would be required at Cornell University, for entrance to the technical courses.

In Michigan, a committee from the State University visits the preparatory schools and if this board of examiners thinks proper, it allows students from these schools to enter upon the certificates of the principals, in lieu of an entrance examination. President Adams suspected that there might be a danger from fraud in the Regents' pass cards in the form now issued.

Principal A. M. Wright, of Waterville, asked if a large percentage of the thirty-three who failed to pass their first term college examinations, were those who had held the Regents Diploma. Dr. Adams thought the number was largely composed of those who were admitted on principals' certificates.*

Principal Gardner Fuller, of Batavia, claimed that the academies had a right to demand of the colleges a minimum standard of admission. The danger of forging pass-cards must be slight. The Regents examinations are a fair test for admission to college.

Dr. Bacon said that as a matter of fact, the Regents have no control over the admission to colleges. What we need is protection, so that students cannot enter college before they are ready to graduate from the secondary schools. A Syracuse parent wished her daughter to enter the High School. She had not passed the preliminary examination in Geography. The Doctor told her it would be impossible. "Then," she replied, "I shall send her to the University." Dr. Bacon claimed that entrance to the technical courses in colleges should require two years of hard work after passing the Regents' preliminary examination. It takes the heart out of work in secondary schools to have unqualified students admitted to college.

Principal D. C. Farr, maintained that colleges should not admit applicants who did not hold Regents' Diplomas. Dr. Bacon inquired what graduates of the academies at Exeter or Andover would do. Principal Farr replied that he referred only to students from New York secondary schools. He was asked what should be done with New York High Schools like those in Syracuse, Auburn, and elsewhere, where the Regents higher examinations are not held. Principal Farr remarked that possibly it might be better for the Syracuse High School to come to the standards of New York State than for the state to yield to the standards of the Syracuse High School.

Dr. Charles H. Verrill, cited the following fact as showing the value of a Regents' Diploma in determining fitness for college work : In the Freshmen Class entering Hamilton College, September, 1885, (numbering forty-eight students), twelve entered holding Regents' College Entrance Diplomas. The class, in a short time, was divided into two sections in Greek in regard to scholarship and ability to work as shown in class-room without respect to the Regents' Diploma. It was then found that the "twelve" holding Regents' College Entrance Diplomas were all in the *advanced* section.

PRESIDENT'S ROOMS,
CORNELL UNIVERSITY,
ITHACA, N. Y., January 22d, 1887.

*DEAR DR. BACON :—In response to your request I send you the following statement in regard to the manner in which the students dropped from the Freshman Class at our recent examinations, were admitted to the University :—

On certificate from High Schools, (N. Y.)	3
" " the Regents	5
" " approved private schools	7
" " other colleges and college preparatory departments	5
On full entrance examinations	1
Total	21

Of those who were dropped twelve were from the State of New York. This classification includes those who have been unable to go on with the Freshman Class. There were some twenty others who were dropped from the class in which they stood at the beginning of the year into the class below.

Very truly yours,
C. K. ADAMS.

Professor E. P. Sisson, of Colgate Academy, would have all students examined on entrance to college by the college examiners.

Principal F. W. Colegrove, of Marion, also insisted that there ought always to be an examination conducted by the college authorities.

Principal Fuller, of Batavia, said it was not because the principals were afraid of college examinations that they wished the Regents' Diploma adopted as the basis of entrance to college, but to guard against the evil of having unqualified students leave the secondary schools to enter college. He believed the Regents' questions to be usually fair, and the examinations to be carefully conducted. No better standard could be found than the Regents' College Entrance Diploma.

Dr. C. K. Adams, of Cornell University, said well regulated examinations of a high standard should be held in the secondary schools. In Germany, no examination for admission to the university is held at the university, but at the *Gymnasia* or *Real-schulen;* and this plan was adopted after a discussion and trial of different methods during forty years.

Principal F. J. Cheney, asked Dr. Adams who should make out the questions. Dr. Adams replied that he was not prepared to say, but that in Michigan it seemed practicable for the principals to conduct the entrance examinations.

Principal Cook, of Potsdam Normal School, then offered the following resolution:

Resolved, That we, the Associated Principals of the State of New York, request the colleges of the State of New York to fix a minimum standard for admission in the various courses to such colleges; and that we request the colleges to admit no student except upon examination, pass-card or a Regents' diploma.

Principal C. W. Richards, of Oswego, believed that the proper persons to conduct the college entrance examinations were the principals who had directed the study of the pupil.

Principal A. C. Hill, of Havana, did not worship examinations; but still he thought principals should conduct them. He felt there was little danger of fraud in the use of Regents' pass-cards.

The question of the allowing pass-cards as certificates was discussed by different principals. Conference adjourned.

TUESDAY AFTERNOON.

Conference called to order at 2 P. M.

Principal D. O. Barto, of the Ithaca High School was not in favor of the colleges accepting the Regents' pass cards in lieu of examination. The students need the final review so as to have all the studies well in hand when they enter.

Principal James W. Ford, of Colgate Academy, did not use the Regents' examinations. Students who hold these cards on entrance to his school, often cannot pass the subsequent examinations in the subjects. He said that the resolution, if carried out, would either drive all schools to hold the Regents' examinations or compel all students to try an examination on entrance to college. The entrance examinations should be held at the college. There is greater danger of principals sending unqualified students than that college professors would admit students of this class. If there were an examination at college, the student would be obliged to have a consecutive knowledge of all subjects up to his entrance; and would not be credited with some subjects which he had studied, perhaps several years before.

Principal W. E. Mead, of the Troy High School, was in favor of a committee of six, three college men and three principals, who should superintend the preparation of all Regents' examination papers.

Voted, that the resolution be laid on the table.

Professor William Gardner Hale, of Cornell University, gave a detailed method of teaching Latin, by which the pupils could grasp the thought in the Latin and subsequently become rapid readers. Professor Hale was asked when in the course he would begin his method. He replied, "From the first." As each new construction was introduced, the student should be required to master it. This should be thoroughly reviewed with each similar construction. Finally the student would know in an instant all possible constructions of a word, and decide quickly as to the right one. Students should receive thought in the Latin, and pupils should learn Latin just as the best students learn German. For example, in the word *doceo*, the student must receive the idea from the Latin word without translating it into English even in thought. President C. K. Adams, of Cornell University, spoke of his visit to Professor Hale's recitations, and of his surprise at hearing a class translate a page of Latin upon hearing Professor Hale pronounce it.

The next subject for discussion was "How far shall Elective Studies be Allowed in Our High Schools?"

Principal E. R. Payson, of the Binghamton High School, said the parlor city was so near Cornell University that the curriculum of the high school there was shaped somewhat according to the course of studies at Cornell, as many of the graduates enter Cornell. He has occasionally allowed a student to drop one study in a grade, possibly two, and then go on as a special student.

Principal O. D. Robinson, said that at Albany, the students who do not pass in a given subject in the regular course are conditioned, and not allowed to graduate until all the conditions are made up. Some students are allowed to take a partial course, but they cannot graduate in the regular course.

Principal C. W. Richards, of Oswego, said that at the Oswego High School, they have two courses of study, and students can take either. They are allowed to spend five years on a four years' course.

Principal W D. Graves found a young lady in the Delaware Academy who was prepared to graduate in all but three subjects, Geometry, Algebra, and Arithmetic. He insisted upon the work being done. She began with Geometry and passed in it and was successful with Algebra and Arithmetic, taking them up in the order mentioned. He asked the principals what to do with a student who was ready to graduate, but had not passed in Arithmetic. Principal E. J. Peck, of Oswego, said he would not allow a student to take up an advanced subject until he had completed the lower one.

Principal C. T. R. Smith, of Lansingburg, thought much time was lost because studies were not taken up in their natural order. He felt sure that the young lady referred to by Principal Graves had passed because she studied the subjects in their natural order.

Dr. N. T. Clark, of Canandaigua, claimed that there were students who *could not* understand mathematics. Some who cannot do good work in these branches are superior in others. He wished to know if our High School courses must be so rigorous as not to recognize good work in many lines, if the student was backward in a few.

Principal E. R. Payson, of Binghamton, asked if Geometry and Algebra could be made elective. Principal A. C. Hill thought it nonsense to lay out a definite course for fifty students. One language should be required, English first of all. There should be more elasticity in the courses. Many children have intelligent parents who study closely their children's ability, and ought to judge of appropriate studies for them.

Dr. George A. Bacon, of Syracuse, said he had tried a choice of studies. Students often wish to make a new choice each term for two years, and then decide to take up the regular course. He mentioned a case in which an intelligent parent chose the studies for his son, but each term became dissatisfied with his own choice and made another, and at the end of two years he had accomplished nothing definite. He might in the same time have nearly completed the regular course. Principal R. L. Maynard, of Deposit, was in favor of helping the backward students over the difficult places and not refusing to them the privilege of going on with their course, because of deficiencies in some one study. Principal W. Hendrick, of Greene, claimed that parents do not know what studies to select. Students should do the regular work.

Dr. Charles H. Verrill, of Franklin, asked Dr. Adams, of Cornell, if, when students have chosen their electives in college, they always keep to this one line of work. Dr. Adams replied that they were usually required to hold to a specific course for two years; and then they can choose other electives to fit themselves further for their special work in life. Students are discouraged from passing from one group of studies to another. The lectures in the different groups conflict.

Principal E. H. Cook, of Potsdam, asked who is to make the choice for the children in secondary schools. They themselves cannot, the parents do not. When electives are allowed in secondary schools, the students themselves find out sooner or later that they have made mistakes. Principal F. J. Cheney said that at Kingston, they have three courses, and allow a few electives. One language is required. Principal C. N. Cobb, of Palatine Bridge, claimed that the whole question turned upon the decision whether knowledge or discipline was the object to be aimed at. Principal A. J. Robb, of Phœnix Academy, stated that, under the school laws a student had the right to take any subject in a public school course if he did satisfactory work therein. Principal B. G. Clapp, of Fulton, emphasized the position that students who are unable to do all the work of a course should never be allowed to graduate. He classed those who failed to do the regular work in three groups ; the deficient, the lazy, and the earnest students in electives. These three classes should have different treatment.

Dr. George A. Bacon, editor and publisher of THE ACADEMY, was called upon for a report of the condition of the magazine. It is now a journal of forty pages. Its editor had said a year ago that if there was a balance remaining on hand at the end of the year he would gladly turn the money over to the association, but if there was a deficit he would pocket the loss. There was no balance and he would not say how much was the deficit, though he afterward stated that in the first half year $600 less had been received than was paid out, but that since September the journal had been running on a paying basis. It was his intention to increase the size to 48 pages.

After several speeches, highly complimentary to the managing editor, the following resolution was submitted :

Resolved, That we heartily endorse the management of THE ACADEMY, pledge it our support and extend our thanks to Dr. George A. Bacon, the editor and publisher.

Principal C. E. Allen, of Medina, was in favor of making up to Dr. Bacon the deficit. Dr. Bacon would not assume to carry the enterprise, if the Conference should shoulder any of the financial responsibility further than to obtain as many subscribers as possible. Mr. C. W. Bardeen, of Syracuse, said that as long as Dr. Bacon was willing to carry the burden, the principals were getting a great advantage at little cost. It was the only publication in the world in this special line of work, and he felt it had reached the expectations of all its subscribers. The resolution was unanimously adopted.

Voted, that the minutes of this meeting be published in THE ACADEMY.

Conference adjourned.

TUESDAY EVENING.

Called to order at 7.30 P. M.

The President asked the principals whether Chemistry should precede Physics. Principal A. C. Hill, of Havana, said Physics should be studied first, because some of the principles of Physics must be understood before Chemistry is taken up. Dr. N. T. Clark, of Canandaigua, said that students could comprehend the laws of motion and heat before the invisible forces of Chemistry could be studied to advantage. Dr. Bacon announced that a paper would soon appear in THE ACADEMY claiming that Chemistry should precede Physics. There was only one secondary school represented where Chemistry precedes.

The President next asked the question, how many principals opened the school sessions with the reading of scripture and prayer. Six principals used neither in opening exercises. Principal Robinson said the Albany High School met in an assembly room, and after singing and occasional quotations from authors, the scholars went to their rooms for recitation or study. Twenty-one principals used either the Lord's prayer or extemporaneous prayer. Eight said they were prohibited by their boards of education from using any prayer, or religious exercises, in the opening of school. Principal Massee, of Saratoga, asked these whether any deterioration of morals was noted in such schools. Principal Robinson replied that he perceived no difference, but he personally believed that there was no more appropriate method of opening school than to read scriptures and to repeat the Lord's prayer. There were only eight secondary schools represented where Moral Philosophy was taught. Dr. George A. Bacon, of Syracuse, said that he did not think the study of Moral Science affected the moral life. Principal A. C. Hill, of Havana, said that students must have some basis of moral obligation. He believes that God should always be recognized in the schools. Dr. George A. Bacon did not think that the science of morals would lead pupils to do right; that it is through training, mainly, that they are led to do right and recognize God. He called attention to the difficulty of teaching any theory of morals in a public school where the parents are Protestants, Romanists, Hebrews, agnostics, rationalists or atheists. He thought it much more important to teach children to do right than to teach any special theory of the reason for doing right. That in the case of young pupils it was little likely to be of help to learn that the wisest men did not agree *why* things were right or wrong. It is enough if we can teach children to be right and to do right, and leave to older heads the theory or science of morals. Principal Ford, of Hamilton, said that Colgate Academy is always opened by extemporaneous prayer, reading of scriptures and sacred song. He said that both the science and the art of morals should be taught. Principal Robinson, of Albany, maintained that when a board of education prohibited religious exercises, they could not shut God out of the schools. He had himself received the greatest inspiration from the teachers who had strong religious characters, not from hearing them pray or read the scriptures. Professor Hale, of Cornell, asked if there was any better method of learning the basis of "the ought" than in the study of the New Testament. Principal Ford said that if he were in a school where there were the children of agnostics, he would teach "the ought" on the utilitarian grounds. Certain things are for our good and others are not. Use familiar examples of good and evil and let students get a common basis of right. Dr. Bacon said that the Syracuse Board of Education did not allow any comment on the scriptures in the opening exercises, but that in his teaching he often uses the Bible. At this point, President Cutting introduced Hon. A. S. Draper, Superintendent of Public Instruction in the State of New York. He was received with applause. He said that it was his earnest desire to know the men who represented the secondary schools of New York. The well-being of a common cause depended upon the cordiality of the different classes of teachers associated in the same general work. As to the reading of the scriptures in the schools, the school-law prohibited it, if there were any local objections, but the department would never say anything on the subject unless there were some local appeal. The question was often raised as to whether school buildings could be used for religious exercises. Country school houses are often used for local prayer meetings. Much exception is now being taken to such use. There seems considerable reason for using the school property exclusively for school purposes. He regretted to say that our school laws did seem to be driving moral training out of the schools.

The principals were then asked in how many schools Physiology and Hygiene, with special reference to alcoholic drinks, were taught outside of the regular class work in Physiology. Superintendent Draper said it was better to leave this matter to local school authorities. He did not think that there was any need of teaching these subjects every day to all grades. He felt that it was more important that it should be taught in the lower grades.

The next question discussed was "The Unification of the School System in New York State." Principal Sheldon, of Oswego, said he was interested to know in what relation the Normal School stands to the other departments of public school education. In New York, we have not a system which is a unit. There are two heads to the system, the Superintendent of Public Instruction and the Board of Regents. He felt that these should be united. He would offer this plan for unifying the educational supervision of the State of New York: "To create in the following manner a State Board of Education, to be styled the Board of Regents of the State of New York, to which shall be submitted all the educational interests of the State that are now provided for by the Board of Regents and the State Superintendent. The Governor to appoint seven men from the present Board of Regents; and the Legislature to elect by joint ballot three new members outside of the present Board of Regents. These ten men, together with the Governor, Lieutenant-Governor and Secretary of State, as *ex-officio* members, to constitute a Board having all the powers and duties of the Board of Regents of the University of the State of New York and of the State Superintendent of Public Instruction. This Board to appoint, after the expiration of the term of office of the present State Superintendent, from time to time, a State Superintendent, who shall hold his office for three years. The Superintendent to nominate his own subordinate officers to be appointed by the Board of Regents. The members of the Board to hold their office for five years; two men going out each year and two men elected each year by the joint ballot of the Senate and Assembly. The State Superintendent to discharge all the duties now discharged by the State Superintendent and such other duties as may be prescribed by the Board of Regents under the direction of the Board." He further said that the present Board of Regents has been of great influence in the State in establishing a common school system. How strange that the public schools were not put under this Board of Regents! This twofold system was unfortunate. There have been times in which there has been strife between the two Boards. The Normal Schools should have only one line of work,—to teach the methods and principles of teaching. The Academies should teach the subjects preparatory to such professional work. These two should work together. The diplomas of the Normal School should be received for admission to the Colleges of the State and as a license to teach. The Normal graduates should go back to the Academies as teachers; or to the Colleges to carry on further study. The teachers' classes tend to raise the standard of teaching in the State. The teachers' institutes create enthusiasm in professional work. These various lines should all be under one head. We need a State Board and a Superintendent working together. This plan, when proposed some years ago, was defeated, although all school men were in favor of it. The Superintendent at that time defeated it. We now have a Superintendent who is above such petty personal scheming.

Assistant Secretary Dr. A. B. Watkins, of the Board of Regents, was next called upon. Dr. Watkins said that the Board of Regents were ready to second any measure of general interest to the cause of education in the State. The Board would consider carefully any plan; but he could not now commit himself to any opinion upon the plan now proposed. Principal Smith, of Lansingburg, said that this question should be carefully considered by the Associated Principals. This question has been considered in educational bodies year after year, but as yet no unanimity of opinion had been reached. We have all felt the favorable influence of the Board of Regents in the Regents' examinations. These have done the students great good. Permanency should characterize any educational board. How could this be done by the proposed State Board of Education, when two new men were to be elected every year by the State Legislature. It would be a political body, hence never permanent. Principal Sheldon's plan would be exchanging a good, tried scheme for a problematical one. Principal Hill said he heartily agreed with Principal Sheldon; besides, his scheme could be put into effect with little trouble. Why should there be two heads to our educational system? Superintendent Draper, when again called out, said that on this question he was "on the fence." He expected to stay there until "the fence" broke down. He said there should be unity in all branches, but whether the Board of Regents should be abolished, or the Superintendent, that was a question on which he could not be expected to speak. He would oppose no measures proposed. Principal Hill said this plan did not propose to abolish the systems of work now used by the present Board of Regents. The members who were to be elected each year would be elected with reference to their fitness for the office. Principal Verrili asked Principal Sheldon how the proposed unification would affect any contracts now existing. Principal Sheldon could not answer as to details, but assumed that the new State Board could carry out all contracts made by its predecessors.

Conference adjourned.

WEDNESDAY MORNING.

Meeting called to order at 9 A. M.

Regrets of absence were announced from Secretary David Murray, of Albany; Superintendent J. E. Bradley, of Minneapolis; Principal H. P. Emerson, of Buffalo; Principal John H. Clark, of Lyons; and Principal James Winne, of Poughkeepsie.

President Cutting announced a communication from the executive committee of the New York State Teachers' Association. Principal

Allen, of Medina, as member of that executive committee said that the Association desired the cöoperation of all secondary teachers to make the meeting of 1887 a success.

The following letter from Principal J. H. Clark, of Lyons, was read by the President:

LYONS, N. Y., December 24th, 1886.

To the Associated Principals:

You are doubtless aware that while a Normal diploma is equivalent to a state certificate, a diploma from even one of the best colleges has no value recognized by law, as indicating that the holder of it has any educational qualifications for teaching. The injustice, if not absurdity of our school laws in this respect, has attracted some attention, and at an informal gathering of Principals and others held during the University Convocation of 1885, a committee, of which I had the honor to be named chairman, was appointed to secure a proper amendment of the school law. One member of the committee was the late Principal Fred. Wright, of Waterville, who seemed to take a great interest in the matter. On account of his death and the change of State Superintendent, no attempt was made to do anything last year.

If the Associated Principals show any considerabie interest in the matter, it is proposed to make an effort to secure the sanction of the State Superintendent, and the necessary amendment from the Legislature this winter.

I submit the proposed amendment for discussion and for any suggestion of modification. The proposed amendment is this:

"A graduate of any college or university which may be designated by the Superintendent of Public Instruction, shall, upon presentation to said Superintendent of satisfactory evidence of good moral character, and of having taught with success three years or more in this State immediately prior to making such application, be entitled to receive from him a certificate, to be known as the College Graduates' Certificate, which shall have the same force and effect as the certificate granted by him after examination."

I would also suggest that in the new law to be sent out by the Superintendent requiring candidates for a license to teach, to pass a written examination upon questions issued by the Superintendent, that Regents' pass-cards in any subject be accepted in place of this examination.

Very truly yours,
JOHN H. CLARK,
Principal of Lyons Union School.

Principal Robinson said that if not at this place, at least at some meeting of the principals, this question should be discussed. Principal Sheldon, of Oswego, said that it was not necessary for students to pass an examination to enter all Normal Schools. He was in favor of some modification of the law requiring this. State Superintendent Draper said it would be a difficult thing for the Superintendent to decide which colleges should be adequate to issue credentials to teachers. He felt that teachers should have some normal training. We are spending too much money on too few people in managing the normal schools. The Superintendent wished an expression of the principals on a law soon to be proposed by himself. It was that the licensing by city boards and school committees be abandoned and that there be a uniform set of questions issued by State, and that all who wish to teach must pass these examinations.

Voted, that the letter of Principal Clark be referred to the executive committee of the conference, to be further reported upon at the next meeting of the Associated Principals.

The President next proposed an informal talk upon the present times and methods of holding the Regents' examinations. Dr. A. B. Watkins, assistant secretary of the Regents, said there was a strong sentiment in favor of two examinations in a year instead of three. In reply to a circular on this question, the majority was in favor of three; but now it had been decided that when any school wished it, the Board of Regents would arrange a preliminary examination at the last of January. The Board of Regents would favor two examinations, but would follow the wishes of the schools of the state. Principal Massee, of Saratoga Springs, asked if it would be possible to have three preliminary examinations and two in advanced subjects. Principal Norris, of Canandaigua, asked what we would do with teachers' classes if we should have only two preliminary examinations. Dr. Watkins said that it would be feasible to have three preliminary and two advanced examinations per year. Principal Farr, of Glens Falls, hoped that no plan would be devised whereby we shall have to do away with one advanced examination.

Principal Kline, of Dundee, said that he had a large number of students who attended but one term; and who could not get back to an examination at a later time. Principal Fuller, of Batavia, said he felt that the principals wished that the examinations in the fall should be held one week later, and asked Dr. Watkins if this could be effected. Dr. W. said that the week had been fixed so as to accommodate students who teach in the winter term; but the Board would be ready to accommodate the schools of the State, and a change could easily be made. Principal Rhodes, of Adams, said the non-resident element in the academies, students who come for one term only, require as large a number of examinations as possible. Principal A. C. Hill, said he wished the time of the fall examination put later. Principal Cheney, of Kingston, said the State should put more help in the Regents' office rather than that any examinations should be dispensed with. He asked Dr. Watkins as to the alleged danger of fraud in the Regents' pass cards. Dr. Watkins said there was no chance of fraudulently getting cards from the Regents' office. There might be a chance for fraud, on the student's part, by his filling out the card himself. This would be remedied. Principal Graves, of Delhi, suggested that all students should get certificates from the Regents or the principals, before they could apply to enter college.

Principal Fuller offered the following resolution:

Resolved, That it is the sentiment of the Associated Principals of the State of New York, that the Regents' examinations in the fall term should be held during the week preceding the annual Thanksgiving.

Principal Norris, of Canandaigua, said that he had a fall term of ten weeks, and the passage of this resolution would injure his school. Principal Farr said the same would hold true for Washington, Saratoga, and Warren counties. Principal Fuller said we should not sacrifice the many to the few. The resolution was adopted by a vote of 42 to 10.

Principal Hill then offered the following resolution:

Resolved, That the Associated Principals heartily endorse the plan proposed by the State Superintendent for the granting of all certificates to teach in the public schools upon uniform examinations held at the same time in all parts of the State, under supervision of the Department of Public Instruction.

Resolution adopted.

Dr. Bacon next related his experience with a Mr. H. N. Harsin, who had bought second-hand books of him. Mr. Harsin paid him cash. He took a letter from Dr. Bacon and had gone through the State and secured books from a large number of principals for which he, in most cases, had made no return. He cautioned all principals against dealing with Mr. Harsin.

The Committee on Nomination reported as follows :

Gentlemen of the Conference :

Your Committee upon the Nomination of Officers for the ensuing year, respectfully submit the following :

President—Ex-Principal George R. Cutting, Auburn.

Vice-President—C. T. R. Smith, Lansingburg.

Secretary and Treasurer—Principal H. W. Callahan, Penn Yan.

Executive Committee—Principal George A. Bacon, Syracuse ; Principal A. C. Hill, Havana ; Principal Fox Holden, Plattsburg.

F. J. CHENEY,
A. M. WRIGHT,
P. M. HULL,
Committee on Nomination of Officers.

Moved that Chairman of the Committee on Nominations cast one ballot in favor of the gentlemen named. President Cutting said he appreciated the delicate compliment of a renomination, but preferred that some principal in active service should serve the association. The motion was carried.

Dr. Bacon read a communication from Prof. G. F. Comfort, of Syracuse University, in reference to proposed legislation, by which the Superintendent of Instruction shall be appointed by the Board of Regents.

The Committee on Resolutions, offered the following, which were adopted :

I. That we extend cordial thanks to the Board of Education of this city for the use of the high school building for our meetings.

II. That the thanks of this Association are due to Professor Hale, for the admirable paper on " How to Teach Latin."

III. That we heartily endorse as worthy of the confidence and support of all teachers in secondary schools, the publication known as THE ACADEMY, edited by Dr. George A. Bacon.

IV. That the following conclusions have been reached after mature deliberation and a free interchange of views :

1. (*a*) That we respectfully request the colleges of the State to establish a uniform minimum standard of admission to the various courses pursued in the same.
   (*b*) That the Regents' pass cards and diplomas should be accepted in lieu of examinations in the branches covered by the same.
2. That the method of teaching Latin as outlined by Professor Hale, of Cornell University, meets with our hearty approval.

Resolved, That we as principals of secondary schools heartily recommend a careful adherence to regular courses of study in Academic work.

Resolved, That a committee of three be appointed by the chair to meet similar committees from the normal schools and Board of Regents to decide upon a plan for the unification of the school system of the State, and to take such action as may be deemed for the common good of the schools represented.

Resolved, That the suggestion of Principal Clark, of Lyons, that the diplomas of the colleges and universities of our State be accepted by the Department of Public Instruction, as evidences of proper intellectual qualifications to teach in the public schools of the State should receive our earnest attention.

On a question of privilege as to whether normal school principals could become voting members of this conference, Voted, That they could become members under the provisions of the constitution.

Voted that the president appoint a committee of five to meet representatives of the colleges at the University convocation in July, 1887, at Albany, to discuss further the "Mutual Relation of Academies and Colleges."

Voted that a committee of five be appointed by the chair to press upon the Legislature the claims of additional appropriations for the secondary schools.

The president appointed the following committees:

To Secure Unification:

Principal George A. Bacon, Syracuse High School; Principal James W. Ford, Colgate Academy; Principal Gardner Fuller, Batavia Union School.

To represent Associated Principals in discussion upon "Mutual Relations of Colleges and Secondary Schools" at University Convocation:

Principal O. D. Robinson, Albany High School; Principal D. O. Barto, Ithaca High School; Principal C. T. R. Smith, Lansingburg Academy; Principal Arthur M. Wright, Waterville Union School; Principal Henry W. Callahan, Penn Yan Academy; Principal D. C. Farr, Glens Falls; Principal C. H. Verrill, Franklin; ex-Principal Noah T. Clarke, Canandaigua; Principal Henry P. Emerson, Buffalo.

To Secure Additional Appropriations for Secondary Schools:

Principal F. J. Cheney, Kingston Free Academy; Principal D. N. Farr, Glens Falls; Principal C. H. Verrill, Franklin; Ex-Principal Noah T. Clarke, Canandaigua; Principal Henry P. Emerson, Buffalo.

President Cutting announced an adjournment of the conference until the July meeting of the University convocation.

G. R. Cutting, President.
Henry White Callahan, Secretary.

The following principals, and ex-principals eligible to membership under the constitution, constitute the membership of the Associated Academic Principals present at the Holiday Conference of 1886:

C. K. Adams, President, Cornell University, Ithaca.
Charles E. Allen, Principal, Free Academy, Medina.
John G. Allen, Principal, Free Academy, Rochester.
Frank D. Babcock, Principal, Union School and Academy, Afton.
George A. Bacon, Principal, High School, Syracuse.
D. O. Barto, Principal, High School, Ithaca.
A. G. Benedict, Principal, Houghton Seminary, Clinton.
W. A. Brownell, Ex-Principal, Teacher of Sciences, High School, Syracuse.
P. J. Bugbee, Principal, Union School and Academy, Newark.
J. H. Carfrey, Principal, High School, Waterloo.
F. J. Cheney, Principal, Free Academy, Kingston.
B. G. Clapp, Principal, Union School and Academy, Fulton.
N. T. Clarke, Ex-Principal, Canandaigua.
I. N. Clements, Principal, Seminary, Cazenovia.
C. N. Cobb, Principal, Union School, Palatine Bridge.
F. W. Colegrove, Principal, Collegiate Institute, Marion.
E. H. Cook, Principal, Normal School, Potsdam.

G. R. Cutting, Ex-Principal, Auburn.
A. W. Dyke, Principal, Academy, Trumansburg.
H. R. Fancher, Principal, Academy, Mexico.
D. C. Farr, Principal, Academy, Glens Falls.
James W. Ford, Principal, Colgate Academy, Hamilton.
G. Fuller, Principal, Union School, Batavia.
W. D. Graves, Principal, Delaware Academy, Delhi.
G. R. Hammond, Principal, Starkey Seminary, Eddytown.
Welland Hendrick, Principal, Union School and Academy, Greene.
A. C. Hill, Principal, Cook Academy, Havana.
Fox Holden, Ex-Principal and Superintendent, Plattsburgh.
L. R. Hopkins, Principal, Union School and Academy, Weedsport.
P. M. Hull, Principal, High School, Waverly.
Willis A. Ingalls, Principal, Evans Academy, Peterborough.
G. A. Jacobs, Principal, Union Seminary, Red Creek.
Roland S. Keyser, Principal, Union School, Middleburgh.
O. C. Kinyon, Principal, Union School, Painted Post.
John Kline, Principal, Preparatory School, Dundee.
Thomas B. Lovell, Principal, Union School and Academy, Attica.
P. T. Marshall, Principal, High School, Hudson.
J. Edman Massee, Principal, High School, Saratoga Springs.
R. L. Maynard, Principal, Academy, Deposit.
William E. Mead, Principal, High School, Troy.
H. F. Miner, Principal, Academy, Skaneateles.
Albert W. Morehouse, Principal Free School and Academy, Port Byron.
A. W. Mumford, Principal, Delta School, Delta.
L. B. Newell, Principal, Union School, Westport.
J. C. Norris, Principal, Academy, Canandaigua.
Geo. H. Ottaway, Principal, Academy, Canastota.
Maurice E. Page, Principal, Union School and Academy, Whitney's Point.
E. R. Payson, Principal, High School, Binghamton.
E. J. Peck, Principal, Free Academy, Owego.
E. A. Rhodes, Principal, Union School, Webster.
O. B. Rhodes, Principal, Collegiate Institute, Adams.
C. W. Richards, Principal, High School, Oswego.
A. J. Robb, Principal, Academy, Phœnix.
O. D. Robinson, Principal, High School, Albany.
Oren Root, Professor of Mathematics, Hamilton College, Clinton.
B. B. Seelye, Principal, Union School and Academy, Homer.
E. A. Sheldon, Principal, State Normal and Training School, Oswego.
B. W. Sherwood, Principal, Free Academy, Rome.
C. T. R. Smith, Principal, Academy, Lansingburg.
Irving B. Smith, Principal, Union School, Warsaw.
Warrington Somers, Ex-Principal, Instructor in Classics, High School, Auburn.
William J. Squire, Principal, Academy, Lisle.
J. D. Stay, Principal, Ives Seminary, Antwerp.
O. W. Sturdevant, Principal, Academy, Onondaga Valley.
A. N. Taylor, Principal, Union School, Sherman.
Hamilton Terry, Ex-Principal, Marathon.
W. P. Thompson, Principal, Academic High School, Auburn.
Fred J. Turnbull, Principal, Union School and Academy, Bainbridge.
Charles H. Verrill, Principal, Delaware Literary Institute, Franklin.
D. D. Warne, Principal, Seminary, Fairfield.
Albert B. Watkins, Ex-Principal, Ass't Secretary, Board of Regents. Albany.
W. L. Weeden, Principal, Union School, Leonardsville.
Charles F. Wheelock, Principal, Union School, Canajoharie.
T. C. Wilber, Ex-Principal, Cortland.
A. White, Teacher of Mathematics, Cazenovia Seminary.
George A. Williams, Instructor in Greek and History, Cook Academy, Havana.
L. O. Wiswell, Principal, Union School, Nichols.
A. M. Wright, Principal, Union School and Academy, Waterville.
T. K. Wright, Principal, Munro Collegiate Institute, Elbridge.

The following teachers, although not members of the organization, were present and indicated their hearty interest in the methods and purpose of the Conference. Several other teachers were present but failed to register.

J. W. Babcock, Superintendent, Union School, Dunkirk.
H. E. Barrett, Principal, Salina School, Syracuse.
Emma W. Benedict, Houghton Seminary, Clinton.
A. B. Blodgett, Principal, Prescott School, Syracuse.
George P. Bristol, Professor, Hamilton College, Clinton.
Charles T. Brace, Principal, Academy, Sinclairville.
A. P. Chapin, Editor of "Educational Gazette," Rochester.
George Griffith, Normal School, New Paltz.
J. Hinman, 743 Broadway, New York.
F. W. Jennings, Principal, Union School, Oneida.
F. C. Kane, Principal, Union School, Cato.
E. P. Sisson, Teacher of Mathematics, Colgate Academy, Hamilton.
George B. Turnbull, Latin and English, Colgate Academy, Hamilton.
L. D. Tyler, Union School, Liverpool.
Charles E. White, Superintendent, Union Free School, Geddes.
R. B. White, Principal, Seymour School, Syracuse.
John D. Wilson, Principal, Putnam School, Syracuse.

Superintendent J. E. Bradley, of Minneapolis, Principals H. P. Emerson, of Buffalo, and J. H. Clark, of Lyons, though unable to be present, sent letters warmly expressing regret at their absence, and a desire to retain their connection with the organization and to sustain it by all means in their power.

APPORTIONMENT OF LITERATURE FUND BY THE REGENTS OF THE UNIVERSITY, JANUARY, 1887.

We give below an alphabetical list of the schools receiving income for the Literature Fund January, 1887. In the right hand column will be found the amount received on advanced examinations, next the number of scholars in each school holding preliminary certificates, and before each school its numerical rank in the list. The amount received on each preliminary certificate is every year decreasing; here it is a little more tnan $2.38.

40.	Adams Collegiate Institute	75	127 67
64.	Addison Union School, Academic Department	57	143 28
89.	Adelphi Academy	46	——
142.	Afton Union School, Academic Department	28	48 89
54.	Albany Academy	65	——
2.	Albany High School	526	288 60
20.	Albion Union School, Academic Department	114	89 64
10.	Alfred University, Academic Department	153	50 25
215.	A. M. Chesbrough Seminary	12	——
202.	Amsterdam Academy	16	35 31
123.	Angola Union School, Academic Department	35	6 79
138.	Arcade Union School, Academic Department	29	8 15
255.	Argyle Academy	2	——
79.	Attica Union School, Academic Department	50	43 46
157.	Auburn Academic High School	25	——
215.	Ausable Forks Union School, Academic Department	12	2 72
202.	Avon Union School, Academic Department	15	——
138.	Bainbridge Union School, Academic Department	29	23 09
46.	Baldwinsville Free Academy	70	54 33

16.	Batavia Union School, Academic Department.... ...	119	181	99
13.	Binghamton Central High School..................	133	——	
115.	Boonville Union School, Academic Department.......	37	5	43
206.	Brookfield Union School, Academic Department......	15	10	87
9.	Brooklyn Collegiate and Polytechnic Institute........	154	——	
3.	Buffalo High School........................ ..	375	423	06
206.	Cambridge Union School, Academic Department......	15	——	
209.	Camden Union School, Academic Department.......	14	——	
112.	Canajoharie Union School, Academic Department.....	38	19	01
134.	Canandaigua Academy..........................	31	43	46
202.	Canaseraga Union School, Academic Department.. ..	16	5	43
162.	Canastota Union School, Academic Department......	24	29	88
198.	Candor Free Academy..........................	17	32	60
71.	Canisteo Academy	54	29	88
86.	Canton Union School, Academic Department........	47	——	
183.	Carthage Union School, Academic Department.......	19	——	
172.	Cary Collegiate Seminary...	21	21	73
132.	Castile Union School, Academic Department.........	32	27	16
117.	Catskill Free Academy..........................	36	12	22
14.	Cazenovia Seminary.....	130	74	70
82.	Chamberlain Institute......................	49	——	
238.	Champlain Union School, Academic Department......	7	5	43
157.	Chateaugay Union School, Academic Department.....	25	62	48
123.	Chatham Union School, Academic Department........	35	60	44
232.	Chester Union School, Academic Department.........	9	2	72
117.	Cincinnatus Academy............................	36	52	97
77.	Claverack Academy and H. R. Institute............	52	77	41
226.	Clinton Grammar School..........................	10	2	72
117.	Clinton Liberal Institute.........................	36	20	37
82.	Clyde High School..............................	49	85	56
71.	Cobleskill Union School, Academic Department......	54	95	07
193.	Colgate Academy, Academic Department...........	18	——	
58.	Cook Academy.....	61	37	35
46.	Cooperstown Union School, Academic Department....	70	115	44
49.	Corning Free Academy..........................	68	35	31
236.	Coxsackie Union School, Academic Department......	8	——	
232.	Crown Point Union School, Academic Department....	9	10	19
151.	Cuba Union School, Academic Department..........	26	14	94
183.	Dansville Union School, Academic Department.......	19	——	
69.	Delaware Academy.............................	55	69	26
67.	Delaware Literary Institute......................	56	90	32
162.	Deposit Union School, Academic Department........	24	——	
222.	DeRuyter Union School, Academic Department.. ...	11	2	72
172.	Dryden Union School, Academic Department........	21	13	58
64.	Dundee Preparatory School......................	57	76	06
32.	Dunkirk Union School, Academic Department.........	85	55	68
92	East Aurora Union School, Academic Department....	45	5	43
248.	East Springfield Academy.......................	4	2	72
60.	Egberts High School...	60	52	97
255.	Elizabethtown Union School, Academic Department..	2	——	
248.	Ellington Union School, Academic Department.......	4	——	
8.	Elmira Free Academy...........................	164	——	
248.	Evans Academy................................	4	2	77
60.	Fairfield Seminary..............................	60	137	17
132.	Fairport Union School, Academic Department........	32	35	31
138.	Fayetteville Union School, Academic Department.....	29	5	43
99.	Flushing High School...........................	41	35	31
89.	Forestville Free Academy........................	46	5	43
112.	Fort Covington Free Academy....................	38	17	66
71.	Fort Edward Collegiate Institute..................	54	37	35
241.	Fort Edward Union School, Academic Department....	5	——	
35.	Franklin Academy, Malone..........	82	159	58
167.	Franklin Academy and Union School, Prattsburgh....	22	20	37
212.	Friendship Academy............................	13	2	72

98.	Fulton Union School, Academic Department	42	14 26
165.	Geddes Union School, Academic Department	23	——
215.	Genesee Valley Seminary and Union School	12	8 15
30.	Genesee Wesleyan Seminary	86	2 72
46.	Geneva Classical and Union School	70	40 74
198.	Gilbertsville Academy	17	18 34
40.	Glen's Falls Academy	75	113 40
52.	Gloversville Union School, Academic Department	66	——
89.	Gouverneur Wesleyan Seminary	46	89 64
128.	Gowanda Union School, Academic Department	34	61 12
183.	Greene Union School, Academic Department	19	5 43
215.	Greenville Academy	12	5 43
103.	Greenwich Union School, Academic Department	40	28 52
54.	Griffith Institute and Union School	65	85 56
167.	Groton Union School, Academic Department	22	5 43
82.	Hamburgh Union School, Academic Department	49	73 34
117.	Hancock Union School, Academic Department	36	24 45
117.	Hartwick Seminary	36	67 91
22.	Haverling Union School, Academic Department	111	141 25
167.	Herkimer Union School, Academic Department	22	21 73
130.	Holland Patent Union School, Academic Department	33	38 03
226.	Holley Union School, Academic Department	10	——
108.	Homer Academy and Union School	39	21 73
51.	Hoosick Falls Union School, Academic Department	67	2 72
28.	Hornell Free Academy	87	55 68
151.	Horseheads Union School, Academic Department	26	5 43
138.	Houghton Seminary	29	38 03
175.	Hudson Academy	20	16 30
134.	Hudson High School	31	38 03
63.	Huntington Union School, Academic Department	58	33 95
30.	Ilion Union School, Academic Department	86	111 37
255.	Ingham University, Academic Department	2	2 72
5.	Ithaca High School	238	305 58
123.	Ives Seminary	35	5 43
11.	Jamestown Union School and Collegiate Institute	151	107 29
37.	Johnstown Union School, Academic Department	80	99 82
145.	Jordan Free Academy	27	25 80
215.	Keeseville Union School, Academic Department	12	——
215.	Kingsboro' Union School, Academic Department	12	10 87
18.	Kingston Free Academy	117	207 11
108.	Lansingburgh Academy	39	40 74
78.	Lawrenceville Academy	51	16 32
183.	Leavenworth Institute and Union School	19	9 51
198.	Leonardsville Union School, Academic Department	17	——
151.	Le Loy Academic Institute	26	44 82
222.	Limestone Union School, Academic Department	11	——
175.	Lisle Union School, Academic Department	20	10 87
39.	Little Falls Union School, Academic Department	77	86 24
247.	Liverpool Union School, Academic Department	5	——
7.	Lockport Union School, Academic Department	167	47 53
108.	Lowville Academy	39	76 06
52.	Lyons Union School, Academic Department	66	76 06
103.	Macedon Academy	40	63 15
241.	McGrawville Union School, Academic Department	5	——
252.	Madison Union School, Academic Department	3	——
209.	Manlius Union School, Academic Department	14	5 43
198.	Marathon Union School, Academic Department	17	42 10
117.	Marion Collegiate Institute	36	38 71
172.	Massena Union School, Academic Department	21	8 15
137.	Mayville Union School, Academic Department	30	12 22
157.	Mechanicville Academy	25	12 90
16.	Medina Free Academy	119	171 80
56.	Mexico Academy	62	63 83
175.	Middleburgh Union School, Academic Department	20	17 66

183.	Middlebury Academy and Union School	19	——
142.	Montgomery Union School, Academic Department	28	5 43
92.	Moravia Union School, Academic Department	45	38 03
145.	Morris Union School, Academic Department	27	88 28
175.	Mount Morris Union School, Academic Department	20	——
99.	Munro Collegiate Institute	41	42 10
20	Mynderse Academy	114	161 62
103.	Naples Union School, Academic Department	40	31 24
71.	Newark Union School and Academy	54	33 95
222.	New Berlin Union School, Academic Department	11	2 72
145.	New Rochelle Union School, Academic Department	27	——
226.	Niagara Falls Union School, Academic Department	10	——
215.	Nichols Union School, Academic Department	12	10 87
248.	North Brookfield Union School, Academic Department	4	——
240.	North Tarrytown Union School, Academic Department	6	——
222.	North Tonawanda Union School, Academic Departm't.	11	2 72
34.	Norwich Union School, Academic Department	84	13 58
130.	Nunda Union School, Academic Department	33	21 73
15.	Ogdensburg Free Academy	128	102 54
36.	Olean Union School, Academic Department	81	112 72
76.	Oneida Union School, Academic Department	53	93 03
56.	Oneonta Union School, Academic Department	62	55 68
145.	Onondaga Free Academy	27	5 43
26.	Oswego High School	92	13 58
238.	Ovid Union School, Academic Department	7	——
25.	Owego Free Academy	107	124 27
96.	Oxford Academy	44	52 97
86.	Packer Collegiate Institute	47	——
209.	Painted Post Union School, Academic Department	14	19 01
226.	Palatine Bridge Union School, Academic Department.	10	2 72
44.	Palmyra Classical Union School	74	16 30
112.	Parker Union School, Academic Department	38	48 89
32.	Penn Yan Academy	85	85 56
67.	Perry Union School, Academic Department	56	73 34
157.	Phelps Union and Classical School	25	12 22
37.	Phœnix Union School, Academic Department	80	89 64
58.	Pike Seminary	61	46 18
92.	Plattsburgh High School	45	39 39
193.	Pompey Academy	18	17 66
92.	Port Byron Free School and Academy	45	58 40
183.	Port Henry Union School, Academic Department	19	13 58
23.	Port Jervis Union School, Academic Department	110	178 59
193.	Portville Union School, Academic Department	18	5 43
28.	Poughkeepsie High School	87	23 09
85.	Pulaski Academy	48	31 92
241.	Putnam Union School, Academic Department	5	2 72
175.	Red Creek Union Seminary	20	2 72
212.	Rensselaerville Academy	13	9 51
241.	Rhinebeck Union School, Academic Department	5	——
255.	Rochester Female Academy	2	——
4.	Rochester Free Academy	348	——
252.	Rogersville Union Seminary	3	——
24.	Rome Free Academy	109	193 53
259.	Rushford Union School, Academic Department	1	——
226.	Rushville Union School, Academic Department	10	5 43
151.	Salamanca Union School, Academic Department	26	10 87
99.	Sandy Creek Union School, Academic Department	46	53 64
115.	Sandy Hill Union School, Academic Department	37	——
40.	Saratoga Springs Union School, Academic Department	75	54 33
157.	Sanquoit Academy	25	23 09
27.	Schenectady Union Classical Institute	88	——
145.	Schenevus Union School, Academic Department	27	46 18
175.	Schoharie Union School, Academic Department	20	25 80
103.	Schuylerville Union School, Academic Department	40	63 83

183.	Seymour Smith Academy	19	14 94
193.	Sherburne Union School, Academic Department	18	6 79
123.	Sherman Academy, Moriah	35	——
167.	Sherman Union School, Academic Department	22	21 73
202.	Silver Creek Union School, Academic Department	16	13 58
134.	Sinclairville Union School, Academic Department	31	32 60
64.	Skaneateles Union School, Academic Department	57	86 24
226.	Smithville Union School, Academic Department	10	2 72
79.	Sodus Academy	50	21 73
108.	Spencer Union School, Academic Department	39	46 18
71.	Stamford Seminary and Union School	54	88 28
123.	Starkey Seminary	35	38 71
1.	Syracuse High School	552	——
99.	Ten Broeck Free Academy	41	39 39
241.	Tonawanda Union School, Academic Department	5	9 51
165.	Troy Academy	23	2 72
175.	Troy Female Seminary;	20	——
6.	Troy High School	170	86 92
151.	Trumansburgh Union School, Academic Department	26	——
79.	Ulster Free Academy	50	96 42
167.	Unadilla Academy	22	25 80
151.	Union Academy of Belleville	26	17 66
12.	Utica Free Academy	142	219 33
212.	Vernon Union School, Academic Department	13	5 43
40.	Walkill Free Academy	75	——
97.	Walton Union School, Academic Department	43	27 16
183.	Walworth Academy	19	2 72
252.	Warrensburgh Academy	3	2 72
128.	Warsaw Union School, Academic Department	34	30 55
232.	Washington Academy	9	5 43
183.	Waterford Union School, Academic Department	19	10 87
162.	Waterloo Union School, Academic Department	24	——
19.	Watertown High School	116	2 72
49.	Waterville Union School, Academic Department	68	167 05
86.	Watkins Academic Union School	47	32 60
45.	Waverly High School	73	71 98
232.	Webster Union School, Academic Department	9	2 72
62.	Weedsport Union School, Academic Department	59	89 64
145.	Wellsville Union School, Academic Department	27	57 04
236.	Westchester Union School No. 1. Acad. Department	8	——
69.	Westfield Academy and Union School	55	96 42
202	West Hebron Union School, Academic Department	16	2 72
183.	West Winfield Union School, Academic Department	19	16 30
142.	Whitehall Union School, Academic Department	28	52 97
175.	Wilson Union School, Academic Department	20	5 43
241.	Windsor Union School, Academic Department	5	9 51
193.	Woodhull Union School, Academic Department	18	——
103.	Yates Union School, Academic Department	40	47 53
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COMMUNICATIONS.

Editor of THE ACADEMY:

On account of the dangerous illness of my little boy, I was not able to be at the meeting of Associated Academic Principals in time to improve the opportunity, so courteously offered me by Principal Cutting, to present before the principals the claims of our State Teachers' Association.

At the late meeting of the Executive Committee of the State Association, the following decisions were made. We pledge ourselves that, so far as is possible with the most earnest effort, they shall be carried out.

1. "More business and less picnic."
2. A less crowded program—not more than two papers for each forenoon session and one for each afternoon and evening session. Free and full discussion.
3. Thursday afternoon, the Association will meet in four sections as follows: Primary and Common Schools, Secondary Schools, Professional Training of Teachers, Supervision. It is hoped that these will be made summer meetings of the several special educational associations of the state.
4. An industrial exhibit (including drawing.)
5. One or more class exercises before the Association.

I, therefore, feel justified in appealing to the academic teachers, as I shall appeal to all teachers of the state, for their united and cordial support of our Association. Allow me to suggest to academic teachers answers to two questions,—why and how should you support the State Teachers' Association.

I. Why?
  1. Because the Association needs you.
  2. Because you need a good and strong State Association.
  3. Because if all will unite in, and contribute to, its support, it will be profitable for every teacher in the state to attend.
  4. Because the broadest liberty will be given to all classes of teachers to participate in all its work, each class contributing its part toward making the association what it ought to be, a strong, vigorous, and profitable organization and the unquestioned representative of the teachers of New York State.

II. How?
  1. By attending.
  2. By influencing others to attend.
  3. By participating in the discussions.
  4. Individually, by preparing papers if called upon by the Executive Committee.

5. By responding at once to the invitation, hereby given each of you, to write me freely any suggestions any of you may have for the good of the Association. I make this invitation as cordial, strong, and universal as words can express.
6. By ceasing to find fault without efforts to remedy, by giving us your moral support, and by unitedly and earnestly striving to eliminate the objectionable, and to strengthen the good, features of the Association.

The meeting will be held at Elizabethtown, the county seat of Essex Co., July 6, 7, and 8. Tickets will be sold from Schenectady or Albany to Elizabethtown and return, for about $4.00. Very low rates of board in first-class hotels and private families have been guaranteed.

Absolutely disclaiming any intention of reflecting upon anyone's motive or work in the past, but with hopeful gaze looking only to the future, I confidently call upon all teachers for suggestion, assistance, and support in an effort to make the next meeting of the New York State Teachers' Association all that it ought to be.

George Griffith, Prest.

New Paltz, N. Y., January 15, 1887.

NOTES.

The Academy *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

With this first number of the second volume, The Academy permanently enlarges to forty-eight pages. Even with this increase we find ourselves compelled to put over till next month the entire matter of *Notes* and *Books Received* which have been prepared for this. With its increased size The Academy hopes to be of still more value to its readers. It begins the new year with fair prospects and a full hope. What it shall be able to accomplish will depend largely on the coöperation of its constituency.

In beginning the second volume of The Academy we seem to speak not to strangers but to those whose kind words and substantial encouragement has made our task a pleasure. We have no high sense of our achievement, but our welcome is no longer a matter of conjecture. Our work, at first perhaps a little vague, has assumed more definite outlines. We know better just what we can do, and more definitely what we can expect of others. It has not been our plan to say much of our purposes, and it is not our wish to speak of what we have accomplished. You have heard our promise and witnessed our endeavor and it is by your encouragement that we venture on another year, as we said one year ago.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

VOL. II. MARCH, 1887. NO. 2.

A TEN YEARS' COURSE IN LITERATURE.

PRINCIPAL WILLIAM E. MEAD, TROY, N. Y.

To draw up a course in literature by merely writing out the names of books, would be a short task. But the dogmatic selection of a list of books, with no reference to principles of selection, is hardly worth the making. Reading may be endless, and ignorance remain dense. We must make our knowledge a growth, not a mere huddle of facts accumulated by desultory reading. The fatal defect in many courses of reading for adults is that the plan is arranged upon no vital principle. A good memory, a list of good books,—and the task is done! To disciplined minds the danger of general reading, carelessly planned, may not be great; but with children an ill-advised selection may result in permanent dislike for the better forms of literature. It is needless to say that we are planning a course to be *studied*, but we ought to make this study as attractive as we can. I do not believe that one course alone is right, while all others are wrong. Any course which is an intelligent development of related parts will probably be successful. To determine what course we may adopt, it must be shown what ought to be learned in the reading class, and in what sense a course of connected reading is better than the fragmentary selections now in vogue. Logically the discussion ought to precede the conclusion. But the practical advantages of presenting the entire course at the beginning outweigh other considerations. In the selection no great originality is possible. We have but a limited number of classic English and American writers to draw upon, and their rank is firmly established. Our chief task will be to grade with some approach to system the books best adapted to the school-room.

I will outline without comment the entire course for ten years, and reserve all discussion till the plan is clearly mapped out. No one then need be compelled to search through twenty pages for the only part of this article that he may care to read. At the outset I may frankly admit that most schools will find the course too extensive, especially in lower grades. In almost every year it may be found necessary to restrict the class to one or two of the books suggested. I do not imagine, for example, that many classes will be able to read all the books named for the third year of the grammar school, or for the third year of the high school course. In any case nothing is to be gained by hasty reading.

INTERMEDIATE GRADE.

First year :

Mrs. Helen W. Pierson, †*History of England in Words of one Syllable*, or †*History of the United States.*
Grimm, *Fairy Tales.*
Kingsley, *Water Babies*, (selections.)
Æsop, *Fables*, (selections.)

Second year :

Defoe, *Robinson Crusoe.*
Swift, *Gulliver's Travels.* (Parts I. and II.)
Andersen, *Fairy Tales.*

Third year:

Hawthorne, *True Stories from New England History.*
Kingsley, *Greek Heroes.*
Kampe, *Swiss Family Robinson.*
Arabian Nights.

GRAMMAR GRADE.

First year :

Lucy Cecil White, *Story of Literature.*
Franklin, *Autobiography.*
Tennyson, *Enoch Arden.*

Second year :

Gardiner, *History of England for Young Folks.*
Longfellow, **Evangeline.*
Whittier, **Snow-Bound.*
Scott, *Ivanhoe.*

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† Perhaps best suited to the third year of the Primary Grade.

Third year :

Higginson, *History of the United States.*
Scott, *Kenilworth.*
Scott, *Woodstock.*
Scott, *Lady of the Lake.*
Longfellow, *Hiawatha.*

HIGH SCHOOL.

First and Second Years. POETRY :

Poe, *The Raven; The Bells.*
Bryant, **Sella; *The Little People of the Snow.*
Longfellow, **Miles Standish; The Birds of Killingworth; The Falcon of Ser Federigo.*
Whittier, *The Bridal of Pennacook; *Mabel Martin; *The Prophecy of Samuel Sewall; *Maud Muller.*
Lowell, **The Vision of Sir Launfal; A Legend of Brittany.*
Holmes, *The One-Hoss Shay; Contentment; *Grandmother's Story of the Battle of Bunker Hill.*

PROSE :

Irving, **Rip Van Winkle; The Legend of Sleepy Hollow; Westminster Abbey; The Country Church.*
Poe, *A Descent into the Maelstrom.*
Hawthorne, **The Snow Image; *The Great Stone Face.*
Bryant, *The Indian Spring; Poets and Poetry of the English Language.*
Thoreau, **The Highland Light; The Sea and the Desert.*
Emerson, **Books; Heroism.*
Longfellow, *Life in Sweden.*
Lowell, *Books and Libraries; Address on Garfield.*
Holmes, **The Gambrel-Roofed House.*
Whittier, *Evangeline; *Yankee Gypsies.*

Third year:

I. POETRY.

Chaucer, *Canterbury Tales; Prologue; Nonne Prestes Tale.*
Spenser, *Epithalamium.*
Milton, *Hymn on the Nativity; L'Allegro; Il Penseroso; Lycidas; Comus.*
Dryden, *Alexander's Feast; Mac Flecnoe.*
Pope, *Rape of the Lock*, or *Epistle to Arbuthnot.*
Goldsmith, *Deserted Village.*

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* Selections marked * may be found in two volumes of selections from American prose and poetry, admirably edited, with biographical introductions and explanatory notes, published by Houghton, Mifflin & Co.

Cowper, *To Mary; Lines on my Mother's Picture.*
Gray, *Elegy in a Country Churchyard.*
Burns, *To a Field Mouse; To a Mountain Daisy; Highland Mary; To Mary in Heaven; The Banks of Doon; John Anderson my Jo, Jean; Duncan Gray; My Luve's like a Red, Red Rose; Mary Morison.*
Byron, *She Walks in Beauty; Oh! Snatched Away in Beauty's Bloom; When we two Parted; Belshazzar's Feast; The Coliseum* [*Childe Harold*, Canto IV., stanzas 139–145.] *The Prisoner of Chillon.*
Keats, *Eve of St. Agnes.*
Shelley, *To a Cloud.*
Coleridge, *The Ancient Mariner; Kubla Khan.*
Wordsworth, *To the Daisy; To Lucy; The Daffodils; Ode on Immortality.*
Tennyson, *Elaine.*

II. PROSE:
Bacon, *Essays.*
Milton, *Selections from Areopagitica.*
Bunyan, *Pilgrim's Progress,* (selections.)
Steele, *Tatler.*
Addison, *Spectator.*
Swift, *Battle of the Books; Gulliver's Travels.* (Re-read.)
Defoe, *History of the Plague.*
Johnson, *Rasselas.*
Macaulay, *Essays.*
Thackeray, *Selections from Lectures on the English Humourists.*

III. THE DRAMA.
Shakespeare, *Merchant of Venice; Julius Cæsar.*
Lives of Marlowe, Peele, Greene, Ben Jonson, Massinger and Ford, Beaumont and Fletcher.
Read to class outline of Marlowe's *Jew of Malta*, and Ben Jonson's *Silent Woman.*

Fourth year:
Comparative study of writers of Reign of Queen Anne and the group of essayists and poets to which Lamb, Hazlitt, Coleridge, Wordsworth and Leigh Hunt belonged.
Additional selections from Byron, Tennyson, Ruskin, De Quincey, Macaulay, Thackeray.
Special reports by single scholars on topics for individual research.

This, then, is our course. The question at once arises: What is the need of such a course, especially in intermediate and grammar schools? And why spend four years in the high school in reading a set of English books which one can read at any time? Let us look at a few facts.

In many schools pupils read eight or nine years before entering the high school. What have most of them to show for their labor? Are the results at all proportionate to the outlay of time and trouble? Are pupils satisfied? Are their teachers satisfied? What is a reading class for? To teach boys to read. To read aloud? Assume this as our test and can we be satisfied? Can the art of pronouncing words of whose meaning and use the pronouncer has but a faint conception, be called reading? And yet this solemn mockery of education may be witnessed in more school-rooms than one would care to name. But oral reading is a subject by itself, and I make nothing of it in this paper.

As for taste in literature, and an acquaintance with the life of a single man of letters, can one pupil in fifty make a tolerable showing? At whose door does the fault lie? If a pupil on passing his examination for entering the high school were to be given a heap of books and asked to select from them the pieces of literature, what would be the result? Could one scholar in fifty be entrusted with the selection? I am afraid not.

The task may not be an easy one. What tests must he use? Speaking loosely, we may say that he should select those books which are organic wholes; which have a beginning, a middle, and an end; those books in which, as Mr. Stopford Brooke says, the language is fashioned with curious care; in which as much attention is given to manner as to matter. Do children get this idea of artistic form in the seven or eight years spent in the reading class? The question needs no answer. But the remarkable fact remains that boys and girls have been reading long enough to gain a superficial acquaintance with names of authors if not with their writings. Why is it that the ignorance of such facts is so lamentable? Some blame belongs to the teacher. Much progress, it is fair to believe, has been made within the last ten years; but so scanty were the references to literature and writers in classes where I read for several years, that I do not recall a single instance when a writer was named as a real man worthy of study; and I shall have to confess that from the hopelessly stupid game called *Authors*, I learned more about literature than from all my teachers of reading put together. It would be interesting to know how many pupils really study the reading lesson. I never did, except that I used occasionally to steal a little time for reading the short sketches of the lives of the writers of the selections, or to glance at some of the pieces which were least dull. No one pretends that the reading class has an approximate understanding of the influences that produced even one of the selections in the reading book. This is hardly to be expected. In fact, I found that I could count on the fingers of one hand the pupils out of a class of a hundred in the first year of the high school course who had read or even heard of the greatest writers in English and American literature. I have before me answers given at a teachers' examination which make Thackeray, Bunyan, Thomas Moore, Dickens, Miss Mulock, Charles Reade, and William Shakespeare, American writers. Shakespeare was a great orator, and Daniel Webster the author of a dictionary! I put these answers beside the explanation of the young lady who told me that Longfellow's "ornaments of rhyme" in the poem of *The Builders* were "something on a pork-barrel."

Tried by any of the tests which we apply to literature—tests of which most pupils know nothing—how does the school reading-book appear? Almost every reading-book reminds one of the old story of the boy who tried to take too large a handful of filberts out of a narrow-necked jar. He found that in order to hold any he must let some go. The objections to the ordinary reading-books are obvious, and have been often urged. Almost without exception the school readers are collections of fragments. Some of the best series are edited by eminent scholars, are beautifully illustrated, and are a delight to the eye and the mind. But of these few present artistic wholes. Even the choice fragments found in one of the most admirable of its class—Cathcart's *Literary Reader*—are torn from their connection so that the pupil misses the meaning of a large part of what he reads. What would be self-explanatory, were the essay, or the oration, or the poem given as an unmutilated whole, means almost as little, in some cases, as it would if written in a foreign tongue. To discover any recognized principle of arrangement of selections, chronological or topical, except such as the convenience of the printer may suggest, would puzzle most teachers, if not the compilers. The fragments may be graded according to their difficulty, but this is not always apparent.

Other serious criticism may be made. In every literary work—with the exception of some celebrated essays which are a law to themselves—the sense of proportion must be observed. An oration is not merely a brilliant peroration. A pudding must contain something besides the plums. But most of the reading-books are like the pudding, with everything left out but the plums. It is difficult to see how a boy is to form correct notions of style, if he has no opportunity to compare in the same production parts which are brilliant with those which are studiously plain, and which serve to prepare for the splendid close. In a word, then, the complaint is that the reading books lack a definite purpose. Beginning nowhere and leading no-whither, they can as well be read from the end as from the beginning. They furnish elegant extracts, and set a bewildering array of scraps before the young reader. But they neither interest nor greatly instruct the average pupil, and they do not awaken a taste for literature.

Much might be done if the teacher would classify the selections on some definite plan, and let pupils learn what they could about the writers, and the larger works from which the selections are taken. But while one may thus use the reading-book as a makeshift guide to literature, something more orderly is desirable.

No graded English readers systematically developing the history of literature have yet been brought to my notice. We shall have to supply the deficiency ourselves. In some way we must bring our pupils into close acquaintance with a poem or an essay as a whole. It may be that, except in very bright scholars, no great development of the literary sense is possible at an early age. But good taste is largely a matter of education. Nearly every child can be taught to sing. Why not, then, familiarize young pupils with the music of verse and the music of prose as well as with any other sort of music. Unless we can take time for such work, it is useless to wail over boys who read trash, while we give them no hint that there is anything better. Literature must be made more fascinating than trash. With most boys trash is the first choice. Every boy from ten to sixteen years of age needs the antidote of the best novels and the most attractive narratives in prose and verse ; and he must read them intelligently enough to know why they are better than the nameless filth which is thrust into his hand at the street-corner. Unless brought to a knowledge of such books in the school-room, he will often go for years without even knowing of the existence of the greatest writers of the century, and he may continue to the end of his days imagining that moonshiny novels, such as Mrs. Holmes and Miss Braddon write, are literature of the highest order.

Well, why not leave this work for the high school? A glance at figures gives the answer. Hardly one pupil in twenty-five reaches the high school. Most high schools give but a single year to literature, and that at the end of the course. To leave the average boy to the forlorn hope of reaching the last year of the high school before giving him an insight into literature is practically to condemn him for life to a taste for third-rate prose and third-rate poetry. He may pick up a knowledge of literature by himself, but we need not expect him to be very grateful to his teachers.

That portion of our course which precedes the high school may be self-explanatory, but a few words will indicate more clearly why we have chosen such literature for the early years, and what may be done with it. We begin with fables and fairy stories. Each is an artistic unit, simple, attractive, and beautiful. Pupils can tell these stories in class in their own words, can write them in composition exercises and language lessons. and in this way increase their vocabulary and their power of expressing thought. Almost all these stories afford an opportunity for moral teaching, and this no wise teacher will neglect.

In the first year also the class may read Mrs. Helen W. Pierson's *History of England in Words of One Syllable.* The simplicity of the style will make rapid progress possible, as no blundering over words can prevent the child from reaching the thought at once. The style is in fact so simple that the book might be pushed back to an earlier grade. Some teachers may prefer the *History of the United States* or the *Lives of the Presidents*, by the same author. The matter is open for debate, but, logically, at any rate, the history of England should precede the history of America. Such knowledge as could be easily gained in part of one year from this charming little history of England would be an excellent foundation on which to rest the study of our own history. The lamentable ignorance of English history which makes the Period of Discovery and the Colonial and Revolutionary Periods so difficult to explain might in large measure be overcome by the reading of this single volume. The books selected for the second year need no commendation. By general consent *Robinson Crusoe* and *Gulliver's Travels* belong to the books of all time. As literature for boys from ten to twelve years of age neither is likely to be surpassed.

Andersen's *Fairy Tales*, while lacking the artlessness of the tales collected by the brothers Grimm, are singularly ingenious and attractive.

In the third year we may well begin the study of our own history. Hawthorne's *True Stories* will be as good a guide as we can find to acquaint the reader with early New England character. Not a page can be called dull, and not a page fails to encourage historical reading outside of class.

Time can probably be found for one or two of the other books in the list. Most valuable, perhaps, is Kingsley's *Greek Heroes.* The style is excellent, the subjects attractive, and the stories are those which have colored the literature of the world for twenty-five centuries. Much, too, may be said for the beautiful story of the Swiss family, in their island home—a tale inspired by the earlier model, but which has delighted the last three generations of schoolboys, and will delight as many more. Nor can we really afford to pass by those marvellous tales of the East, which never grow old, and which served as a storehouse of allusions to the most brilliant of English historians.

In the first year of the grammar grade, the pupil will be able to read and appreciate Lucy Cecil White's *Story of Literature.* Students of literature will, of course, discover errors in facts, but the style is good, and the general impression excellent. Franklin's *Autobiography* will continue the development of history through biography. This is a most admirable book in matter and in style. The writer has a plain story to tell, and he tells it in a plain way.

A new feature appears in each of the years of the grammar grade—a piece of poetry. Some very simple verse may be introduced in the earlier grades, but for young pupils the higher forms of literature are unfit. As John Stuart Mill says, in his *Essay on Poetry*, a person cannot appreciate poetry till he has shared in some measure the experience of the poet. What is needed is poetry at once simple and attractive, and yet so good that it may serve as a preparation for Shakespeare and Milton. Narrative prose and poetry are near the level of the young student's mind. The poem may hint at deep experiences, and to an older reader suggest unutterable thoughts, but the main appeal is to objects of sense. Sensuous poetry, full of vivid pictures, and rich in color, is most likely to attract the young reader. Such is the character of each of the poems here selected. The exquisitely simple story of *Enoch Arden* may well occupy the whole of the time given to poetry in the first year. In the second year *Evangeline* and *Snow-bound* may be read and contrasted. In this formative period of the pupil's mind, the teacher cannot expect any great enthusiasm for poetry. The best passages may be pointed out to the class, and a line or two a day committed to memory. An occasional selection of poor verse read in class will be an excellent test of the progress of the pupils. The romantic picturesqueness of *Hiawatha* and the vivid coloring and rapid movement of Scott's *Lady of the Lake* make these pieces as good a continuation of the poetic course as a pupil is likely to find. These should not be hastily read. They may be taken rapidly at first, so as to give a clear outline of the story, but they should afterward be developed line by line with loving care, till the pupil feels that he has read something different from the verses in the corners of newspapers.

In the second year we may continue the historical course in parallel lines with literature, by reading the *History of England for*

Young Folks. This is by one of the most eminent of English scholars. Nothing essential is omitted, and not a dry page can be found in the book. One or more of Scott's novels will continue the simple narrative prose, and give a familiarity with the writer whom, with all his defects, many critics are disposed to rank as the greatest of English novelists.

Higginson's *History of the United States* may be read in the third year, to supplement the class study of history. Care must be taken that the histories here suggested may not crowd out the literature. Judicious alternation of history, poetry, and the historical novel will yield the best results. *Ivanhoe* or *Kenilworth*, a boy will finish by himself; and we need not read these books through in class. The poems, and if possible, the histories, should be read entire.

This in brief is the course suggested for the six years preceding the high school. It goes without saying that any live teacher will keep up a vigorous questioning on every reading lesson till the meaning of every part is understood. Then each writer will be studied in his relation to other writers, and each book made a nucleus about which to gather all illustrative material necessary to make the meaning clear. The proper use of cyclopedias, biographies, histories, reader's handbooks, and dictionaries of various sorts must be explained to pupils, and a little work of investigation required each day. Such work is of endless variety, and its extent will be limited only by the ingenuity of the teacher, the ability of the class, and the time at their disposal. It is, perhaps, needless to add that all the literature I have suggested must be provided with such hints on reading, and such outlines of language lessons as are found in the best of the school readers, before the place of the reading book can be filled. Till then the plan I have outlined may be regarded as a course of supplementary reading. The expense of the course is trifling, and this may be made still less.

Many teachers will prefer to teach "useful knowledge" in the reading class rather than a knowledge of literature. In some grammar schools an elementary book on physiology is read in class, and a very creditable showing made at the end of a term or two. A book of this sort may be interjected into our course if there is no help for it. I must own to a wicked liking for one of Scott's novels rather than the good book on physiology, but anything is welcome as a substitute for reading-books that leave a pupil little wiser at the end of a term than at the beginning.

In the work of the preceding six years the incidental study of literature in the reading class has enabled the pupil to absorb much of the spirit of literature. In the high school we may first begin the systematic development of the history of literature, and the comparative study of writers. To the argument that we have not time for four years' work in literature, we may say—take time. Some high schools find time for it. The college preparatory course may be too crowded to admit more English. But if a smattering of four or five subjects was not deemed more important than a thorough knowledge of one, we might find ample room in the English course for all the work we have outlined. If smaller text-books were substituted for some of the bulky volumes now in use, time for literature would surely not be lacking, and most pupils would gain, I apprehend, quite as clear notions of some subjects as they now do.

What to read for the first two years of the high school course may not be easy to decide. Few pupils, perhaps none, are advanced enough to make a thorough chronological study of English literature, and to trace the influences which shape writers. They know little of history, nothing of rhetoric, little enough of anything, and worst of all they do not realize their ignorance. Evidently we cannot set them to studying Bacon's *Essays* and Milton's *Comus*. The essays must be simple in thought and expression. The poems must be narrative and descriptive, though an occasional simple lyric may not be out of place.

The question what to do in the first two years may be put parallel with a second question: What shall we do with American literature? A simple solution is to do nothing at all with most of it. The vast bulk of American books written before 1860, can only by courtesy be called literature. They are interesting historically, and nothing can be more amusing than some of the flatulent oratory of the ante-bellum days, and the limping, broken-backed verse of our Puritan forefathers. It is not flattering to national pride to be obliged to confess that the majority of our writers are of the fourth or fifth rank. Making no mention of living writers, when we have named Drake, Halleck, Poe, Hayne, Bryant, and Longfellow as poets; Cooper and Hawthorne as novelists; Motley, Prescott, Hildreth, and Palfrey as historians; Irving, Emerson, Thoreau, and Whipple as essayists, we have made a list not exhaustive, but not so short that great injustice has been done by excluding writers entitled to the first rank. Of course, Whittier, Holmes, and Lowell take their place as recognized classics; and such writers as Burroughs, Stedman, Curtis, Higginson, McMaster, Will Carleton, Howells, Cable, Warner, Stowe, Aldrich, James, and a host of others in departments not purely literary, need not shrink from comparison with writers across the Atlantic. But much of American poetry is only a weak reflection of English thought and feeling. The sin of imitation brings its sure reward. Nobody troubles himself with warmed-over sentiment. Such raptures as American poets once suffered over the English lark, which they had borrowed for poetical purposes, belong to the provincial period of our literature. The less time we waste over most of the writers of this period the better. Yet we must know the few who rise above the common level, and as far as possible we should study them in a connected way.

It is an overstatement to say that the writers named in our course represent all that is best in American letters. That would be to take no account of the other writers I have named, who are rapidly giving America an enviable place in literature. Yet most teachers will agree that in pure literature we have few names greater than those on our list, and perhaps none so well adapted for class study.

A word now upon the writers we have chosen. It is a singular fact that making a rough division, these writers form two groups—one in New York, the other in Boston. If, then, we study the central figures in these two groups, and some specimens of their writing, we shall understand fairly well what America has done in literature. Of course, in speaking of literature, I do not include such admirable political writing as the papers in the *Federalist*, such orations as Webster's and Clay's, or such theological writing as *The Freedom of the Will*. If the writers we have chosen are studied for the first two years of the high school course, the time will be by no means wasted. The relation of this work to other departments of school work deserves a word.

In many high schools rhetoric is taken up in the second year. With the amount of literature we have suggested to illustrate the text-book, the few vital principles of rhetoric may be vividly presented, and the study too often voted a bore may be made one of the most attractive in the course. To study isolated sentences is deadening to all enthusiasm. If language is to be used as a living organism, it must be seen in action, and the laws of its use determined from actual observation.

In these two years in the high school there will be but ten authors to study. Toward the end of the second year, a week or two may be profitably spent in outlining the lives of the dozen other American writers who demand most attention. A rapid glance at living authors, and running criticisms by the teacher will be as much as we can hope for in the class-room. This, of course, is only learning *about* literature; but in this, as well as in his study of literature, the pupil is learning a method of approach to the subject. By grouping facts about a poem, the student will be able in the following year to go a step further, and in some degree to measure the causes which tend to make one school of poetry unlike the school which precedes it.

The aim in the third year will be to get a general view of the progress of literature by a topical study of the life and times of representative English writers. History and literature can be developed side by side, and each made to throw light on the other. The brief outline of literary history which was read in the first year of the grammar school may now be filled in by material drawn from every quarter. In studying each writer we ought to learn at least the name and the purpose of his greatest writings, and enough of his personality to understand his relations with men of his time. Two days a week will be ample for this work. The remaining time can be given to literature.

The question at which point to begin—with Tennyson or with Chaucer—has been often raised. The final result is the same, whether we begin with the effect and trace it back to the cause, or with the cause and trace it out to the effect. The matter is not worth a dispute. Most teachers will prefer to begin with Chaucer, and develop the subject historically. Dividing the literature loosely into poetry, prose, and the drama, we may select for study the authors and the writings named in our course. One has almost as little freedom of choice as Portia had. There is small room for debate as to which are the greatest English poets. If a hundred men should name the fifteen best English poets, probably ten of the fifteen would be named in each list. Assuming that our list contains the fifteen names which the reader would select, we may indicate in a word or two how we may best study each writer.

Of Chaucer every class ought to read at least a few pages. Says Emerson: "Humanity shines in Homer, in Chaucer, in Spenser, in Shakespeare, in Milton. They are content with truth. They use the positive degree. They seem frigid and phlegmatic to those who have been spiced with the frantic passion and violent coloring of inferior writers." This frigidity is nothing but self-control, and the lesson cannot be learned too early. Chaucer will not be found too difficult for the average class. I have repeatedly taken classes through the *Prologue* and the *Nonne Prestes Tale.* These selections are enough to give a taste of his manner, and an acquaintance with the English of the fourteenth century. For his language alone Chaucer is well worth study. No other purely literary work shows so clearly the transition from the old inflectional forms to the simplicity of structure of our modern speech.

If possible, historical English grammar ought to be taught in the higher grades of the high school. Pupils in general know nothing of language. They have studied grammar, it is true, from one to three years. Single sentences they can analyze with fluency, and can cover a black-board with sentences stretched on diagrams which look like the caricature of a vertebrated skeleton. But of sentences in their logical relations to one another, of the structure of paragraphs, of the interdependence of thought throughout an essay, they know nothing. If boys knew something of language before attempting to subject it to scientific analysis, if teachers would not make so-called language lessons a cloak for formal grammar, and if the language lessons outlined in the best of the school reading books were faithfully worked out, pupils might not approach grammar with the loathing and distrust which too many now show. Pupils who understand no language but their own often find it difficult if not impossible to grasp the simplest grammatical truths. They recite a rule and break it in the same sentence. Habit is stronger than precept. If the time now spent on English grammar in grammar schools should be reduced four-fifths, and the time spent on some great English classic read in illustration of the few grammatical principles worth knowing, most pupils would learn in the grammar school nearly as much of grammar as they now do, and could take up at a later stage the study of linguistic niceties for which the grammar school is totally unfitted. Boys who leave school at the age of twelve are far more likely to pick up grammar from literature than they are to pick up literature from grammar.

With Spenser we cannot do much. A few pages of the *Faery Queene* may be read in class; but the *Faery Qneene* demands more preparatory culture than most high school scholars bring to the study of an English author. The *Epithalamium* would be well worth study, if a cheap edition could be found. At any rate, some of the choicer passages may be read to the class.

In an article of this length, I cannot mention every topic which may be assigned. Many of these may be selected from any good text-book. The rise of the drama, the influence of the Renaissance, the forms of Elizabethan poetry, the spread of euphuism, the characteristics of each literary period—these and similar topics will suggest themselves to every intelligent teacher. Time for studying more than a few specimen poems by the greatest representatives of each period cannot be found. The teacher must supplement the class work with enough illustrative passages to show clearly what are the characteristics of the writers who cannot be read in more detail.

After Spenser the next great name is Milton. *Paradise Lost* is too large to be handled in class. A single book may be read, but this will crowd out for most classes *Comus*, *Lycidas*, *L'Allegro*, *Il Pense-*

roso, and the *Hymn on the Nativity*. Regarded as artistic wholes, *Comus* and *Lycidas* will yield, as it seems to me, a larger return to a class than a splendid fragment of a poem too large to be grasped as a whole.

Leaving Milton, we come next to the "Glorious John." The selection commonly made from Dryden is *Alexander's Feast*. This is good enough of its kind, but I cannot help thinking that most young students get from it an utterly inadequate conception of Dryden's powers, and fail to see in him the forerunner of Pope in classical satire. The cheap jingle of words put together to be sung by a chorus is not to be compared with the magnificent movement of those disdainful lines which picture Shadwell "with lambent dulness playing round his face." Nor will a teacher full of his subject neglect the portraits in *Absalom and Achitophel*, especially the one of Shadwell in the Second Part, where we see

> "Og from a treason tavern rolling home,
> Round as a globe, and liquored every chink,
> Goodly and great he sails behind his link."

Neither Dryden nor Pope will at first interest classes as some writers do. The nineteenth century has grown away from them. But the artistic polish of such verse—I cannot call it poetry—as the *Rape of the Lock*, the *Epistle to Arbuthnot* or the *Essay on Man* is worthy of the most careful study. Much of the work on Pope might with advantage be left till the next year. Considerable literary culture is necessary for a thorough liking of Pope. His satire is too personal to enable us to see how perfectly he hit the mark, till we have become familiar with Grub Street and the coffee-houses of a century and a half ago. People talk a good deal about Pope nowadays, but it is a question whether many aside from professed students of literature now read him for pleasure. Yet we must study him if we would understand the literature of the eighteenth eentury.

Moulded in the school of Pope, and yet separated far from him in spirit, are Goldsmith and Cowper. The selections most valuable, probably, are Goldsmith's *Deserted Village* and Cowper's Lines *To Mary* and *On My Mother's Picture*. In passing from Cowper to Burns the class may pause at the name of Gray long enough to read the *Elegy*. Of Burns's poems we may select a few of those in our list. As a change from the monotonous school of Pope, Burns is a welcome relief. His best work is found in his short pieces ; and a familiar acquaintance with a few of these will let the reader into almost all the secrets of his style.

Byron and Shelley we shall have to touch lightly. A few short lyrics read in class will show the advance in poetic feeling and expression in the century after Pope. In our survey we should give at least a passing glance at Keats. For splendid coloring and picturesque narrative, his *Eve of St. Agnes* is a marvel of beauty.

With Wordsworth we cannot delay long, though perhaps no poet since Milton will do more to cultivate a severely simple taste. Wordsworth produces effects so surprising by the use of language the most unadorned, that the lesson that truth is power could hardly be more impressively taught. His short lyrics are brightest and freshest, and these mean far more to a boy or a girl than the elaborate and stately poems of his later years.

Among Wordsworth's contemporaries was one whose fame grows with time. This was Coleridge. With his philosophical writings we can do nothing. Of his poems we have time for only two, *Kubla Khan* and the *Ancient Mariner.* Few poems are more likely to fascinate a young mind than the *Ancient Mariner.* It is one of those poems, rare in any literature, that burn their way to the centre of the consciousness and abide there as a permanent possession. The indefinable weirdness of the situation produces the same effect in verse that the *House of Seven Gables* does in prose.

After Coleridge and Wordsworth general consent places Tennyson. To count him first among the poets of his own time is a distinction not to be given him without qualification. But to adopt Bagehot's admirable classification, Tennyson is beyond question at the head of the ornate school, as Wordsworth is the best representative of pure art, and Browning of grotesque art in poetry. Some of Tennyson's verse may be put beside Milton's for artistic finish and picturesqueness. Most readers find as much in Tennyson to cultivate the taste as in any poet of any age. Without being weak in conception or execution, laying on each color with the firm hand of a master, he has a delicacy of touch which makes his poems a model of all that exquisite care can suggest.

Other poets of our own century demand attention—the Brownings, Swinburne, Morris, Rossetti, Keble, Clough, Newman, Matthew Arnold, but they need not all be studied in the third year of a high school course.

II. Leaving poetry and coming to prose, we have a topic not altogether easy to treat. We may begin our prose writers with Bacon and end with Thackeray and George Eliot. We cannot hope to include the host of writers who do the journeyman work of literature. We must give our whole time to the masters. Second-rate excellence is far easier in prose than in poetry, nor is it always easy to tell when a prose writer passes from the second rank to the first. Any one can write, and by a sort of lucky accident may produce sometimes most admirable prose. But a single short production hardly entitles one to take rank with the masters of prose style. These are almost as rare as poets of the first order. Fortunately the excellences of good prose are so much alike that a comparatively few styles are enough to acquaint the student with most that is best worth imitating.

He ought early to become familiar with a compact and unambitious style, and this he may find in Bacon's *Essays.* He ought to know the power of idiomatic English, free from labored grandeur and subtleties of expression, and aiming at nothing but the clear statement of a plain thought. This he may find in Bunyan, Swift and Defoe. Selections from the *Tatler* and the *Spectator* may be put in contrast with some of Bacon's *Essays.* The incomparable brevity of Bacon and the graceful ease of Addison can thus be seen to best advantage. In Hume we have an example, of a pure, easy, neat, unadorned style; in Gibbon of the elevated, sonorous period; and, in Macaulay of the interplay of epigram and antithesis. This will captivate the young reader at first, and may lead him to weak imitation. But if he can learn the secret of Macaulay's transparent clearness, he can afford to ape Macaulay's mannerisms for a few months. These three historians we cannot read in class, but Hume and Macaulay, at least, we can read in our study of some period, and thus incidentally become familiar with their style.

Dr. Johnson comes into the list more because he was the centre of one of the most interesting groups of men in the last century than because most readers will care to become familiar with the *Rambler* and the *Idler.* *Rasselas* may be of real interest to a class; and as a specimen of the great Doctor's writing which is philosophical but not wearisome, and didactic without being too obtrusively moral, it holds a unique place. Well worth reading for their own sake are the *Lives of the Poets*. In the main, however, Johnson's style should be studied in order to be avoided, but most teachers and pupils will avoid it without any warning.

One of the glories of the eighteenth century is the development of the novel. Little of our time can be given to the novelists; yet a few recitations may well be spent in tracing the history of the novel from Richardson to William Black and Anthony Trollope.

Goldsmith's *Vicar of Wakefield* and a multitude of prose writings of the beginning of this century will occur to every mind as filling the gap between Dr. Johnson and Thackeray. Burke, DeQuincey, Charles Lamb, Dickens, George Eliot, are all worth study, but we can hardly find time in the third year for more than Thackeray. His writing easily lends itself to selection, and will repay the most careful study. In every page we see the reflection of Addison and Steele and Fielding and Sterne and Smollett. Yet the whole is so flavored with the personality of the great novelist that the style is as original as Carlyle's without leading the reader to fear that the page has run mad.

III. Of the dramatists we can hardly find place for any besides Shakespeare. One cannot go far wrong in selecting any two of his plays—a comedy and a tragedy. For high school classes, *The Merchant of Venice* and *Julius Cæsar* are, perhaps, as good as any. Cheap editions of plays contemporaneous with Shakespeare are not accessible. but the teacher can in part supply the lack. For example, he can make Shylock more interesting and illustrate Shakespeare's dramatic skill by reading to the class enough of Marlowe's *Jew of Malta* to bring the two characters into vivid contrast. Ben Jonson's *Silent Woman* may be easily outlined in a single recitation period, and the farcical character of the work put in contrast with the method of Shakespeare. Two or three days on the lives of Greene, Marlowe, Ben Jonson, Beaumont and Fletcher, and Massinger and Ford would not be ill-spent.

In the fourth year of our course, while there is no danger of going far wrong if we carefully study any literary period, there is room for considerable difference of opinion as to the two periods best worth comparing. Some portion of our own century we may select without debate. More complex than any other century, and therefore more difficult to trace in all its tendencies, it is nevertheless better fitted than any other to serve as a basis of comparison, inasmuch as we are breathing its very spirit. Much of the high thinking of this century or of any century is a vast remove from the mental horizon of the high school scholar ; and the best of us may feel satisfied if in a lifetime we can stamp the great features of the age upon our minds ; but even in the high school we can read some of the greatest prose writers, and some of the best poets.

Perhaps the best period to compare with our own in its spirit and its achievement is the first quarter of the eighteenth century. This was "the golden age of prose" as the seventeenth century was the "golden age of theology." Even the brilliant verse which a liberal definition allows us to call poetry is nothing but metrical prose. The age was a somewhat shallow one ; for in spite of Locke and Berkeley, Butler and Newton, the popular mind was anything but philosophical. In politics, philosophy, and religion the practical filled the whole horizon. The ideal belongs to the revolutions of the close of the century. Yet we cannot but see that Addison and Steele and Arbuthnot and Swift and Pope knew the world, and had the gift of telling what they knew. The period is interesting, because it was wicked, and because everybody was gossiping in print about his neighbor.

We are fortunate in having a most interesting literature descriptive of the period ; and this I think quite as valuable as much of the literature of the time itself. Thackeray's *Lectures on the Eighteenth Century Humourists* are recognized classics ; and the *History of Henry Esmond* is not surpassed in quiet beauty by any novel in our literature. In Macaulay's Essay on Addison, we have perhaps the best introduction to the two great essayists. Dr. Johnson's best work is his critical estimate of Addison and Pope, and of Dryden, the forerunner of Pope. James Russell Lowell and a host of lesser writers have studied the period, and embodied their researches in brilliant prose.

We might narrow our study still more and examine the six years from 1708 to 1714. We could then get a glimpse at men and parties, at customs, manners and morals, so that we might really have an opinion of our own on the period. We could make considerable selections from the *Tatler* and the *Spectator*, reading all of the *De Coverley* papers, and some of the quiet satires on women and their dress. After studying the group of Whigs who congregate at Button's, we may pass to the Tory group. Swift's *Bickerstaff Papers* and selections from the *Journal to Stella*, Arbuthnot's *History of John Bull*, and Pope's *Rape of the Lock*, with a portion of the *Essay on Criticism*, will give a fair acquaintance with one of the most brilliant and interesting periods of literary history.

What selections to make from the literature of our own century must be determined in part by the materials at our disposal. Living writers, except the most distinguished, are not easily studied, for neither their writings nor the facts of their lives are easily accessible. Most interesting, perhaps, will be the study of the group of writers which embraces Charles Lamb, Hazlitt, Coleridge, Wordsworth, Leigh Hunt, Southey, Keats, Shelley, De Quincey. Suggestion of favorite pieces is dangerously easy, but at this stage of the work each teacher may do best to make his own selections. If he is competent to teach his class, he will certainly be able to decide what his class can profitably read. In addition to the writers of this group we may name Ruskin and Tennyson. One advantage in studying the group of writers contemporary with Charles Lamb is that much of the best literary work of the century takes its beginning with them. Of course, we are separated from them by half a century, but the chasm is not so wide that it cannot be easily bridged. At any rate we cannot make an intelligent study of our great contemporary writers until we know the influences which formed them in their youth, and this study takes us back to the first quarter of the century.

Possibly the most fruitful method of study would be for the class to spend a few weeks in becoming familiar with each period. Topics could be assigned on any subject till the leading features of the period were clearly outlined. Then taking up the literature, the class might spend the first two days of each week upon the literature of the eighteenth century, and the next two days upon nineteenth century literature. On the fifth day a comparison might be made, where comparison is possible. This method is capable of indefinite expansion, and it would be easy to write a volume of explanations ; but in a general sketch details can receive but scanty attention.

In glancing back over the writers in the ten years' course, I am aware that it is easy enough to object to individual names, and to suggest better. All that this means is that our literature is rich. It would indeed be a pity if in a course of ten years we could read all the English worth reading. In lower grades we have small choice ; for classic English adapted to young minds is by no means so abundant as might be desired. For higher classes we can easily find material for twenty courses. Something, however, is to be said for the authors in our list. Nearly all are representative writers, who illustrate some great tendency of their time, and who set the model which other men followed. If we attempt to trace literature historically, we shall have to omit many writers whose intrinsic merit is greater than that of some others who belong to an earlier age than our own, but who bind together the present and the past. That all the favorites of each reader are included in this course I am not sanguine enough to hope. But it must not be forgotten that even high school scholars are boys and girls, and that we are not trying to make literary critics.

COLLEGE ADMISSION EXAMINATIONS: REPORT OF THE COMMISSION OF COLLEGES IN NEW ENGLAND.

At the special meeting of the New England Association of Colleges and Preparatory Schools held in Boston, January 7 and 8, Prof. W. C. Poland of Brown University, presented a report of the Commission of Colleges in New England on Admission Examinations. As the mutual relations of the colleges and preparatory schools are now attracting wide attention everywhere, we give Prof. Poland's report almost entire. It gives in brief a history of the the work attempted in New England. We may note in this connection that in New England the colleges are largely interested in this work, while in other parts of the country it is the secondary schools mainly that are agitating the subject. In his report Prof. Poland said :

You all know the causes which led to the formation of our commission. None can know them so well as you, for the action of the Associaation of colleges in New England which called the Commission into being, was taken in direct response to your own appeal. This appeal embodied in the five resolutions passed at your meeting in Boston on October 16 and 17, 1885, was strongly and ably presented to the Association of Colleges at its annual meeting at Dartmouth College, October 27 and 28, 1885. Your Committee, Messrs. Bancroft, Tetlow and Collar explained fully the particular requests made in the resolutions. The Association seriously and carefully considered the facts thus laid before them, and finally appointed a Committee consisting of President Eliot, Professor Hitchcock and myself, to try to unite *all* the colleges of New England, in the establishment of a Commission on Admission Examinations, each college to appoint one member of the Commission.

It would be my choice that the chairman of the committee then appointed might speak to you instead of myself. President Eliot was quick to understand and appreciate the urgency of your appeal, and prompt to frame a plan of action that should meet your desires. To him is due a large share of whatever praise may be given to the formation of our Commission. It is enough, perhaps, to say that he has done all that might be expected from one who always has done so much for stimulating progress in the great work of education. He could tell you far better than I what the Commission is prepared to do.

However as you have bidden me to speak I will go on to say that the committee at once opened correspondence with all the colleges in New England. They sent to the president of each college a copy of the following votes which had been passed at the meeting at Dartmouth College.

Voted: that a committee of three be appointed to try to unite all the New England colleges in the establishment of a Commission on Admission Examinations, each college to appoint one member of the Commission.

Voted: That in the opinion of this Association the functions of such a Commission should be:—

1. To maintain with punctuality the existing degree of uniformity in the requirements for admission.
2. To bring about a greater degree of uniformity in requirements upon common subjects.
3. To bring about a greater degree of uniformity of regulations in regard to the division of admission examinations into preliminary and final examinations.
4. To urge the use of identical examination papers upon common requirements.

Voted: that in the opinion of this Associotion provision should be made for the traveling expenses of members of the Commission, and for a salary for its secretary, and that this provision might suitably be made by assessing each college in proportion to the size of its freshman class.

The committee further invited each President to bring the subject before the faculty of his college, and to inform the committee whether the faculty wished to join other N. E. colleges in maintaining such a commission as was proposed. It is unnecessary to give in detail the history of this correspondence. The colleges all manifested a desire to promote the objects of the proposed commission. Finally, in the spring of 1886, thirteen colleges had agreed to unite in forming a commission, and a preliminary meeting was held at Harvard University, on the 9th and 10th of last April. The colleges then uniting to form the commission were Amherst, Boston University, Brown, Colby, Dartmouth, Harvard, Smith, Trinity, Tufts, Wellesley, Wesleyan, Williams and Yale. Each college named sent one delegate. The principal work of this preliminary meeting was to frame a constitution to be acted upon by the colleges, which, if ratified, should become the fundamental rule of action for the Commission. After a full discussion the delegates united in a report to the colleges, proposing for their adoption a plan of organization. A copy of this report was sent to the President of each college represented in the Commission. All of the colleges mentioned have now ratified the plan proposed, and the Commission is definitely established. By recent action of the Commission, Bowdoin college also having signified its approval of our rules, has been cordially received into membership. Five colleges have not yet seen their way clear to uniting in this movement, though most of them have expressed an interest in the objects of the Commission. The plan of organization adopted is as follows:—

I. This Commission shall be constituted by the appointment of one delegate from each college, to serve for three years. The first full term of service of the delegates shall begin as follows:—

From Amherst, Boston, Bowdoin, Brown and Colby, with September, 1886;

From Dartmouth, Harvard, Smith, Trinity, and Tufts, with September, 1887;

From Wellesley, Wesleyan, Williams, and Yale, with September, 1888.

The present delegates, or, in case of vacancy, delegates to be appointed from the several colleges, shall serve until the above dates.

II. The functions of this Commission shall be to consider and recommend to the several faculties such measures as the Commission may deem expedient to maintain and promote uniformity in the requirements for admission to college.

III. Full liberty of action is reserved to each faculty on all proposals made by the Commission.

IV. The Commission shall hold a stated meeting annually in the month of April, and such other meetings as it shall deem necessary.

V. The Commission shall have power to appoint a permanent Secretary, and to fix the amount of his salary.

VI. The Commission shall have power to provide for its expenses, including the traveling expenses of its members, by assessing each college in proportion to the size of its Freshman class last admitted; the total annual expenditure of the Commission, including the salary of the Secretary, not to exceed six hundred dollars.

VII. The Commission shall have authority to admit delegates from other New England colleges, on their acceptance of the above conditions.

VIII. The assent of eight colleges shall be necessary for the establishment of the Commission.

By way of comment it may be said that by Section 1, providing for a term of service of three years for each delegate, it is intended to secure that degree of permanence necessary for carrying on work that must be continuous and consistent, and at the same time to provide an opportunity for the admission of new elements at regular intervals.

Sections II and III recognize and embody the fundamental principle upon which the colleges unite. The Commission has no mandatory power. It can only recommend such measures as it deems expedient to maintain and promote uniformity in requirements for admission. The colleges distinctly and explicitly reserve full liberty of action on all proposals made by the Commission. Of course they could unite on no other basis. This was apparent from the outset, and was expressed in the letters in which the assent of the colleges was first given.

Section V, providing for a secretary, recognizes the importance of engaging the services of an officer who shall put himself into close and constant communication both with the schools and with the colleges, that he may learn what needs seem most pressing, and how the college can best meet the desires of the schools. The secretary must seek information from the schools, must study carefully the facts thus learned, and present to the Commission the questions revealed by these facts. It is provided by the By-Laws of the Commission that this work shall be done under the direction of an executive committee. They are to decide what questions shall be studied and presented to the Commission for its consideration. Of course the Commission at any time may take up any question which properly belongs to it to consider, even if it has not been prepared by the direction of the executive committee. But it is believed that generally it will be more profitable to consider questions which have been prepared carefully in advance.

One question has already received the attention of the Commission. The fourth resolution in your appeal to the colleges reads as follows .—

IV. *Resolved*, That this conference request the colleges to unite in prescribing definitely the subjects which may be offered at the partial or preliminary examinations, the minimum number for which a certificate will be given, and to decide whether a final examination may be converted in any case into a preliminary examination or a preliminary examination into a final examination, and if so, on what terms.

At the preliminary meeting of the Commission in April, the first half of what is embracd in this resolution was considered, and the following recommendations were made to the colleges :—

1. "*Resolved*, To recommend to the several faculties to permit candidates in the preliminary examination to be examined only in those subjects in which their teachers certify that they are prepared, and in which they present themselves with their teachers' approval.

2. "*Resolved*, That this Commission suggest that the several faculties recommend the reservation of the following subjects until the final examinations : Virgil, Latin Prose Composition, Homer, Greek Prose Composition, Geometry, French, and English Composition."

The intention of these recommendations is—

(1.) To assist the preparatory teachers in reserving such work for their pupils as shall make a symmetrical course of study for the year immediately preceding admission to college.

(2.) To prevent interruption in the study of subjects which will be continued after admission to college.

It now remains to be seen whether this action will be ratified by the colleges, and how far it will seem useful to the preparatory schools. The Commission acted upon such information as was available at that early period of its existence, and will gladly welcome any further light upon this subject. Our action thus far must be regarded as very tentative.

A meeting of the Commission was held on the 28th of last month (December, 1886), at which By-Laws were adopted, and a secretary was chosen. We are now ready to begin our work.

Such in brief is our story. The colleges have recognized the importance of the questions which you have urged upon their attention, and have united in good faith in supporting the Commission. They have promised to contribute the money necessary to carry on its work. Their delegates are ready to consider seriously and carefully all questions which they properly may discuss. You will allow me to say here that the Commission will now look to the preparatory schools for that coöperation without which progress toward our desired ends must be slow. The Commission, though fully established, is established as an experiment.

Though all the colleges desire to maintain and promote uniformity in the requirements for admission, and wish for the Commission the largest success that can attend its work, all are not equally sanguine as to what can be effected by it. They will generously give it the fullest opportunity, and will patiently wait for it to pass through the early and more tentative period of its existence. From the schools must come the information which shall teach the Commission where difficulties exist, where burdens are felt, where improvement may be made. The Commission, though a Commission of Colleges, in that it is supported and directed by them, though it is entrusted with the consideration of questions of no small concern to the colleges, after all, will manifest its results primarily and chiefly in the preparatory schools. The burdens which exist, rest almost wholly perhaps, upon the schools. Therefore, now that the colleges, recognizing the reasonableness of your appeal, have devised a method of responding to it, they appeal to you in their turn to give to their Commission your confidence and coöperation.

The Commission has assigned to me for the present, the work of the secretary. I shall be glad if in connection with this meeting of your Association, some special conference can be arranged between the teachers of the preparatory schools here present and the members of the executive committee, under whose direction I am to work. An opportunity for such a conference will not occur again soon. We have our annual meeting in April, and we invite full and free suggestion of questions important for us to consider.

In closing, I would like to say one personal word. I do not say it in the name of the Commission, though I trust I should not find myself alone in all that I may express. Having tried to teach college classes since 1870, I have not been impressed chiefly with deficiencies in the amount of work imposed for admission. My own experience shows an improvement in this respect. The average quality, too, has improved, if a certain formal and technical standard of judgment be adopted. But I am more and more impressed, and often sadly impressed, with the failure on the part of college students to manifest that intellectual curiosity, and to put themselves into that mental attitude that shall make their studies truly educating to them. The subjects assigned them do not lack interest for a mature mind that is fully awake. Why may not our youth sooner feel their power? If we look from our lecture rooms we see them keenly engaged in the sports of the campus, or shrewdly devising and executing the intricate laws which regulate their sports. In the consideration of the many items of practical business in which the modern college student takes an interest, great quickness and alertness are seen, even though blended with immaturity. But the assigned tasks of the earlier years of college,—how heavily they are carried!

Now it does not seem to me that the reason for all this is to be found in any one condition or place attending their education up to the point when the man finally awakes, if he ever awakes, from this apathetic state. Some allowance must be made for physical, or perhaps more accurately, physiological facts. I suppose that what I have stated, if true, is true more particularly of young *men* at the average age of admission to college. It is quite likely that it is felt less in the colleges for young women. We know that the older young men who enter college manifest it in a less degree. They often are not so well prepared in the details of the requirements, but they know what they are doing.

Certainly in touching the subject, I would not imply that the faithful, hard-working, intelligent preparatory teacher is to be held responsible. But this I wish to say, that it is my personal hope, as one engaged with you in the work of education, and particularly as a college teacher, that in some way we may discover some means to awaken our pupils earlier. I would not increase the amount of work demanded. Perhaps often it might judiciously be lessened. In many cases I would not demand greater fidelity of the pupil. But as I have already hinted, I wish that the average student might really know what he is doing, and have the desire living within him to do something more than merely to learn lessons, and strive for his degree. I say the average student, for if some did not already meet these desires of ours, our very hearts would fail.

Now while we are working as we must, upon these matters of detail with which the Commission must chiefly be concerned, may we not, from either side of the line where school and college meet,—for the line is one of meeting, not of separation—may we not approach our work in that spirit which shall enable us to improve the tone of the whole work of education from its formal beginning to its formal end? May we not give it such unity that from the alphabet to the academic diploma symmetrical, steady and progressive intellectual growth shall be more effectually promoted? To me it seems that the best results of our work as a Commission *may* be manifested in the growth of a further sympathy between the schools and the colleges, and in a larger quickening of the intellectual life of the youth committed to our care. "*Quo quidem opere quid potest esse praeclarius!*"

It is easily seen from this that not very much has thus far been accomplished, but the Germans say "*Alle Anfänge sind schwer*," and to have made a beginning at all is a real point gained. Two things are certain: the preparatory school men are anxious to have the assistance of the colleges in their work, and the best college men are no less anxious to come into closer relation to the preparatory schools. What the practical outcome of the wishes of these two will be is yet to be decided. The men who are struggling with the problem are not visionary enthusiasts, but hard-headed men of sense, many of them accustomed to deal with practical affairs, as well as to con their books in their quiet studies. Many points will have to be yielded for the sake of a general result which all acknowledge to be good, and the self-seeking of a few individuals or a few institutions in this, as in many other things, may render futile the efforts of many who are unselfishly striving for something better.

An interesting discussion followed Prof. Poland's report. Mr. Collar, in reply to President Eliot's comparison of the work done in French and German schools with that done in American schools, brought out the fact that education is not the serious business for the young in this country, that it is in other countries. Our boys are not less bright than the German boys, but they can never hope to compete with German boys in scholarship, as long as we undertake to combine work and pleasure in the manner in which it is usually done in this country by youth in their teens. It might be added in this connection that the American youth is placed at an additional disadvantage from the fact that popular opinion requires him to dabble more or less with subjects that are never taught in foreign schools.

Later on the question was asked: "Does the circular issued by Harvard University conduce to greater uniformity in the requirements for admission to college?" President Eliot explained that at first sight, the circular does not seem to conduce to uniformity, since it offers several new optionals. But one must get an idea of what uniformity means. In one sense the circular was opposed to it, as it did not insist that all candidates should present the same things at entrance. In the sense, that by it all candidates could get into Harvard College, it *did* tend to uniformity. It encouraged the formation of various kinds of schools for the preparing of candidates for Harvard. One has said that it meant an extension of the elective system to the schools. But let us see. The old classical school is not affected by the circular. It can go on as it has heretofore, teaching Latin and Greek, a little mathematics and science, and enter its boys. Any well-equipped English high school can teach elementary Latin and Greek, much mathematics, and a good deal of science, and enter its boys on the same level. Between these two extremes are all degrees of variation. Hence we must say that it does not conduce to uniformity in school programmes.

But there is a sense in which it does conduce to it. In English this Association determined upon a system, and this has not been affected by the circular. In Latin and Greek the different colleges often required their candidates to be examined in some special textbook. This would cause great confusion at the preparatory schools, especially where they were fitting for several colleges. But the Harvard circular is so stated as to do away with this. No books are prescribed, no methods are ordered, but only an ability to read at sight passages of a certain degree of difficulty. This is not confined to the elementary stages, but is extended to the higher. This he considered a valuable contribution to uniformity.

In mathematics nothing is done to interfere with existing uniformity. Books are not required, but only a knowledge of the principles within certain limits. In history and natural sciences the greatest diversity has been introduced. Harvard University really wished to improve the methods of teaching these. In doing this, it hoped to have an indirect effect upon the systems employed in the secondary school. It recognizes English and American history as optional for Roman and Greek. This is thought to be an improvement. In the matter of natural science the instructors in these departments have been trying for a dozen years to get some requirements in science, but so far they have been a failure, and the professors said the boys had better study more Greek and Latin. The students in the lower schools have been taught from text-books, and not by methods of observation and induction. So the requirements in natural science were abandoned. Physics fared better in the lower schools, and the instructors reluctantly allowed this to remain.

There is no diversity of opinion in the faculty of Harvard as to the value of these studies. Both the classical and scientific departments wish preparatory study in science, but they wish good methods of study in this line.

In offering the great number of options contained in this circular, the faculty had no idea the elective system would, as a consequence, invade the schools. It looked to the creation of a variety of schools, rather than variation within existing schools.

The only kind of uniformity for admission to colleges is uniformity on common subjects. He had never been able to understand why all the New England Colleges could not unite on one set of examination papers. There seems to be no advantage in each college's looking over the papers of its candidates. Better examinations would be obtained if the papers were set by one, rather than by seventeen. One common paper, looked over by a committee, is the desirable thing. The diversity now practiced has hindered liberal education in New England. It has been divided against itself by having denominational colleges, in competition with each other, and so the cause has not grown. It was a recognition of these facts which led Harvard to adopt the course under discussion, which she felt tended to true uniformity and harmony.*

Later in the session Principal Bradbury, of Cambridge, furnished considerable amusement by showing that there are twenty-seven hundred and sixty ways of entering Harvard, possible, and within the limits of probability, and that several thousand more are possible, though not probable.

On Saturday morning there was appointed a committee consisting of Mr. F. A. Hill, of the Cambridge High School, C. F. P. Bancroft, of Phillips Andover Academy, and William Gallagher, of Williston Seminary, of Easthampton, to present to the commission subjects which they wish considered. This leads directly to the practical work of the commission. The colleges seem to have done about all they can do at present. It rests largely with the secondary schools to say whether there shall be any practical outcome from the willingness which the colleges have manifested. It is hardly the function of the commission to invent business or to consider the wishes of the secondary teachers, unless these wishes are presented to them and bear some evidence of being supported by a numerous and influential body of teachers. Naturally, some of those who have cheerfully consented to enter the commission are not sanguine that it can accomplish much. They have signified a willingness to try an experiment, which they are not justified in trying unless it meets the approval of a considerable portion of those whom it is intended to benefit. In the past, each college has tried to work out by itself what seemed best for itself and its immediate constituency of fitting schools. It is not to be imagined that the interests of all the colleges are identical, or that any scheme will directly benefit them all. If, for the sake of helping the general cause of education, they are willing to consider, and in any degree to accede to, the wishes of secondary teachers, they should at least have the satisfaction of knowing as fully as possible in detail the wishes of those teachers. For this reason we urge very strongly, that secondary teachers should present in proper form either to this committee or to Prof. Poland the points which secondary teachers wish to have considered. In this way alone is any practical outcome possible.

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*Our report of President Eliot's remarks is taken from the New England Journal of Education for January 20.

It is to be remembered that no uniformity is to be sought except in common requirements. It can not be expected that each college will demand for entrance just what the other colleges demand and no more. The thing sought after must be what in New York we call "uniformity in the minimum requirement."

As the editor is himself a Brown man, he may perhaps be pardoned a feeling of satisfaction in the knowledge that at this meeting of teachers in Boston where it is said were representatives of every New England college, the graduates of Brown University comprised almost one fourth of all the teachers present.

Since the commission meets in April for the consideration of these questions, it is important that all suggestions be made as promptly as possible. They may be addressed to Prof. Poland, 12 Barnes St., Providence, or to any member of the above committee.

COMMUNICATIONS.

To the Editor of the Academy:—

The article by Prof. Moss, entitled "Another Way of Beginning the Study of a Language," interested me greatly, because it seems to me to indicate a step in the right direction, and because, for the past three years, I have used a method in beginning Greek similar in some respects to the one outlined, but marked by a still more radical departure from the traditional way of beginning the language.

The objections to using a "first-book," made up of detached sentences, are in practice quite serious. A sentence from Xenophon, taken out of its connection may be as difficult to make out as to dishearten the most interested student, when with the context it may present no serious difficulty whatever. This fact every teacher knows. Again, a half year or more spent with a "first-book" for the sake of taking up etymology and syntax in a certain systematic order, is a needless expenditure of time, when made introductory to the same sentences taken as Xenophon wrote them. Every teacher knows that a saving of six weeks during the year is worth trial. At least that amount of time may be saved with better results to teacher and student.

Lastly, as to the use of *pedagogic Greek*, if I may use the term. I am somewhat confirmed in the opinion that Xenophon, though ignorant of some things, knew how to write Greek as well as any pedagogue of to-day. Isn't it far better to draw water from the spring than to dip from the muddy stream further down? Such Greek may serve a purpose, but I prefer Xenophon's story of Cyrus and the famous retreat to a Hellenized "William Tell" or "George Washington."

My own classes begin with Grammar and Anabasis the first day. They see no other text-books till about the middle of their first year, when Jones's "Greek Prose" is begun. We take up the first sentence of the Anabasis, after learning the letters and their sounds. The second declension of nouns is taken first, (for Δαρείου) then labial stems of the third declension, (for Παρυσάτιδος), then the pres. indic. middle of ω-verbs (for γίγνονται) and so on. References are constantly given to the grammar as the work goes on. After students have had Latin for a year, and have become accustomed to the grammatical terminology of the two languages, there is no necessity for taking Greek etymology and syntax in any particular order.

After a few lines have been read and thoroughly mastered, I find it best to give a vocabulary of about thirty words from following pages of similar inflection to those already taken ; also *τίς*, *πῶς* and other interrogative words with pres. indic. of *εἰμί*. With these questions and answers are framed for oral work in class, and many sentences are given by the teacher for translation into Greek, with insistence on correct accent, etc., from the first.

Having read six sections of chap. I., we have met instances of all the tenses, and all the moods except the imperative. Sections 108–110 in Goodwin's Grammar are then taken, and in a careful review the principal parts of all the verbs are committed to memory, and many illustrative sentences given for translation into Greek. I decidedly favor getting the verb well in hand, as early in the course as possible. No danger in getting a few things "for certain" very early.

This will sufficiently indicate the method. Now as to results, the real test of any method. We read and review very carefully Book I the first year. We translate into Greek about three hundred sentences dictated by the teacher, and the first fifteen lessons from Jones's "Greek Prose." What is the spirit of the class ? They like Greek, they are wide-awake, and they have more thoroughly mastered the forms and ordinary constructions by the end of the year than many students have when they enter college. The time saved has been well used in constant drill on these very points. We have no difficulty in reading and reviewing three books of the Anabasis, with sight-reading of half the fourth, three books of the Iliad, and completing Jones's Prose during the two years of our course in Greek.

This may not be the *ideal method*, but knowing no better from my own experience, I use it, hoping sometime to find one which will make the acquisition of Greek still more of a pleasure and less of a drudgery. I believe the main fault with the study of Greek is in the method of teaching. The "Natural Method" pure and simple does not solve the problem, though it suggests something far better than the old way. The discipline of the study of the greatest of the languages is worth all that it costs, but we must find the way which will produce the best results with the least expenditure of force.

GEO. A. WILLIAMS,
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IN THE MATTER OF GERMAN SCRIPT.

The question is often asked by the principals of preparatory schools: Ought I to teach the pupils I am fitting for college to write German script? The query involves the disposition of no inconsiderable time at a period when time is of value, and, consequently, is a matter of some moment both to the instructor and to the pupil. A few years ago, comparatively, the question could scarcely have arisen. German script, so called, was everywhere used by German writers, and writers of German had no choice but to follow a universal example; the use of the German language involved the use of its chosen characters as an outward and visible sign. Now-a-days the case has assumed a somewhat different aspect. By no means all Germans in Germany habitually write German script; some use it only partially, and others have apparently discarded it altogether.

The reason for this state of affairs is simply that the disadvantages of the old written characters are becoming more widely obvious, and the gain in celerity in writing and in legibility by the use of the clear Italian hand are more generally felt. Both forms are now taught in the German schools; and while patriotism will, no doubt, long have something to do with the conservation of the old script, the more practical plain Italian letters must ultimately alone have possession of the field. The same struggle is also taking place among the printed characters; and here the battle is obviously again to the straight Latin letters, which are surely gaining ground. A few years ago it was rare to find a book printed with them; now books, magazines, and brochures may be instanced without end. Nearly half a century ago Jacob Grimm wrote: "Who uses the so-called German text writes barbarously," and established the precedent himself of neither writing nor printing it. His example has been followed by other well-known recent writers. A story by Spielhagen—*An der Heilquelle*—was published two years ago in the *Staats-Zeitung*, the MS. of which, in the hand-writing of the author, was in our familiar script. Auerbach, too, always used the Italian hand in his correspondence.

Beside this literary espousal of the now almost universal hand, some present German writers of scientific authority do not hesitate to decry the continued retention of the old script. F. Techmer in a recent article* speaks disparagingly of the "luxury of an especial alphabet," and proposes to do away with it in a remarkably ingenious manner. In a chapter on "Die Muttersprache in der Schule," he favors a phonetic orthography and further writes: "Gewöhnte man sich daran, bei phonetischer Schreibung nur die lateinischen Buchstaben zu gebrauchen und die überlieferte Orthographie nur mit sogenannten deutschen d. h. eckigen Buchstaben zu schreiben, so musste mit den eckigen Buchstaben auch die historische Schrift aussterben, was die überladene Schule doppelt entlasten und damit ein Schritt zur Lösung der Ueberbürdungsfrage sein würde."

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* Sprachentwickelung, Spracherlernung, Sprachbildung von F. Techmer. In Dreizehnter Bericht über die höhere Schule für Mädchen zu Leipzig. Leipzig, 1885.

The fact, however, remains that the old script is still in abundant use. A note of inquiry to some of the most prominent foreign bankers of New York elicited, among others of exactly the same import, the following response:—

Dear Sir: In reply to your favor we beg to say that in our German correspondence we use exclusively German letters; also, nearly all letters received from Germany are written in German script.—J. & W. Seligman & Co.

The student, then, if he ultimately makes use of his acquired German knowledge for business purposes, as he in many cases no doubt will, is sure to be confronted with this matter of German script; so that the question as to whether it ought at some time or other to be acquired is really an important one. There seems, nevertheless, to be but one practical way of answering the question propounded at the beginning. Since all educated Germans perfectly well understand both forms of script, and no inconsiderable number actually make use of the Italian alphabet, it follows that not only is our own hand intelligible to all Germans, but its use would not be considered at all extraordinary or even unconventional. Every student of German ought to be taught a thorough reading knowledge of the so called German script, because it is still in use by perhaps a majority of Germans, and if this can be done in the preparatory schools, so much the better. A writing knowledge, however, can easily be dispensed with. As it is, it is rare enough that our own necessary script is well written. If the time that the acquisition of the new alphabet would require were spent on the better formulation of the old, the result would be of far more practical benefit; while the disadvantages arising would be purely imaginary, and would never be felt in actual practice.

WM. H. CARPENTER.

Columbia College.

INTERCHANGE.

Communications upon any inside-school topic are solicited, and may be addressed to G. R. CUTTING, AUBURN, N. Y. *The subject for April will be: Which branches of Science are taught in the Secondary Schools; and which only should be included in an academic course of study?*

SCIENCE TEACHING IN SECONDARY SCHOOLS.

The subject of this INTERCHANGE was designedly made broad, our purpose being merely to call attention to the general quality of science teaching that is done in the secondary schools. In our next number, the inquiry will take a narrower and more definite form; and, in subsequent INTERCHANGES, there will follow a discussion of specific methods in the branches of scientific study that can usually be profitably pursued in high schools and other academic institutions.

The responses to inquiries on this topic have been always suggestive, often somewhat amusing, yet, in general, profitable. One fact seems to be demonstrated, that high school principals and academic teachers—except a few specialists—are more reluctant to say anything to the public about the science teaching that is now done in their schools than about any other department of academic work. To visiting teachers or officers, the average principal will far oftener recommend an inspection of the class work done in Latin, mathematics, literature, or history, than a visit to the classes in physics or chemistry. The principal usually disposes of the subject something after this manner: "We don't do much in science here, I am sorry to say. Yes, we have a class of physics, etc. They pass the Regents' examinations, to be sure, but we don't boast much of the work we do. To tell you the truth, we haven't the facilities." In a few high and union schools, there are notable exceptions to this condition of things. There are principals and class teachers in our secondary schools who have the true scientific spirit, who inspire their pupils—necessarily a limited number in the smaller schools—with a love for science, and who are as proud of a class in physics as of one in arithmetic. But the average principal, when addressed by inquiries about the quality of the science teaching in his school will give you a gentle hint to please ask him something on some other subject.

Here is a significant response: "We will tell you something about *how* we teach science, when we do not have to get our pupils through Regents' examinations. At present, we publish only *results*." Here the plan is evidently the cramming-with-facts method. "What kind of preparation in science do you get from the secondary schools," we inquire of a college professor. "Don't ask me, I am ashamed to tell you the details," is the spirit of his reply.

We again inquire of a college professor of chemistry: "Do you prefer that pupils should come to your college entirely ignorant of chemistry, rather than with the average kind of preparation that you complain of in students coming from the secondary schools?" His answer is: "No, chemistry should be taught in the high schools, *if it can be properly taught*, but there's the rub." The italics are his, and significant of his doubts, based doubtless on his experience. On the whole, we are led to believe that principals, and all parties concerned, are more ashamed of what is done in the department of science than in any other branch of academic study. The trouble, surely, does not lie with the pupils. They, especially the boys, are—as Professor Winchell says—naturally "surcharged with an interest in material things whose presence and forms and activities have made their life. As demonstrated in one of the following papers, the difficulty lies in the lack of teachers in so many of the secondary schools who are competent to instruct in science. In the few schools where scientific methods of instruction are employed in physics or chemistry, it is always noticeable that there is never any excuse about "the little apparatus we have." Here, the classes and the teacher—that is the ingenious students under the direction of the teacher, in ordinary cases—are ready and eager to supplement "the scanty apparatus" by simple and ingenious devices that make no great demand on the time, brain, or hand of any party concerned. A little money, a little "gumption," a little executive ability, do wonders in such science classes.

A summary of the real reasons why better work is not done in science-teaching would seem to be; (1) some teachers are too lazy to inspire profitable work in science classes; (2) some teachers have to teach so many branches of study that they can not get time to do the preparatory work necessary for a profitable teaching of science; (3) some teachers have no taste for science studies, and they teach the science classes, only because they are compelled to in the lottery of the assignment of classes; (5) some teachers are too conservative to get out of the old, time-honored ruts of "hearing book-lessons"; (5) many teachers of science classes are lamentably incompetent, by reason of their own poor training in college or elsewhere, in scientific subjects; and many of these, especially the principals, *can not* get time to supplement their own deficient education by adequate reading, study, or original investigation; still others are teaching only as a stepping-stone to some other profession, hence these *will not* spend the time to teach properly what they pretend to teach.

The signs of the times are, however, hopeful, for they point in the direction of progress. Both science and science teaching have taken rapid strides within a few years past. Especially has there been an improvement in the science teaching of some of our more prominent colleges. The remedy for the poor science teaching that is now done in so many secondary schools must largely come from these colleges. We may confidently hope that in the laboratories of those higher schools that are giving the proper prominence to scientific study, teachers are being educated who will soon find their way into the secondary schools, who will revolutionize those present methods that are now justly open to criticism, who will displace the hum-drum, rote recitations that so often pass for science teaching, and who will bring about a condition of things, wherein a principal of a high school may be as proud of his science classes as the average principal now is of his classes in Latin.

It will be the spirit of a near future to divide honors, at least, in good teaching between science studies and the classics. If this INTERCHANGE shall induce some principal to look closely to the way in which scientific studies, in general, are taught in his school, as compared with other branches, its purpose will be subserved. If those principals and superintendents who find, upon investigation of the class room work, that the comparison between the teaching of science and other branches is favorable to the instruction given in the department of science, the INTERCHANGE editor will be glad, upon notification, to modify his present table of statistics.

BURR LEWIS, LOCKPORT, N. Y.

In many of our Academies, science occupies a subordinate place, and yet, due allowance being made for individual taste, no other branches of study afford greater pleasure in their pursuit, none possess greater disciplinary value, when the sciences are well taught.

It is pertinent, then, to inquire as to the cause of this disparagement. The difficulty is radical; it has its origin in the partial education of the principals. Not long since, one of our progressive city Superintendents said to the writer, "My instruction in Science, while in college, was absolutely worthless." No inconsiderable number of our principals are college-bred men, whose college course was similar, and, therefore, in the Academies under their charge, the instruction in these branches is of doubtful value, and the pupils do not become acquainted with the pleasures and advantages of the pursuit of Science.

These principals are deeply conscious of the one-sided character of their education, and strive nobly to remedy the defect, but for one who has had no suitable preparation in the elements, to give even fair instruction in Physical and Natural Science, requires a vast amount of work, far more than Principals can devote to that purpose. No one but the experienced teacher fully realizes the amount of labor required to impart thorough instruction in the Sciences. The time required for the care of apparatus and the preparation of experiments is seldom justly estimated, and instruction that does not involve experimenting by the teacher, or the pupils, or by both, to illustrate the principles of the lessons, is of very questionable advantage.

The Science teacher who does not bestow much time and thought on his mode of instruction, can not be eminently successful. That method is undoubtedly the best that incites, to the greatest extent, the pupil to well directed mental and manual activity. Manual is used advisedly, for Physical manipulation has a well ascertained place in educational processes. These ends are most largely secured by the pupils performing carefully-selected experiments under the immediate supervision of the teacher. The extent to which the teacher and the pupils shall devise apparatus for illustration in Physics and Chemistry, and to which the pupils shall experiment, must be determined by the facilities and circumstances. The teacher must practice careful economy in the use of his time, and he alone should determine how much can profitably be used in manufacturing and repairing apparatus for experiments that are too complicated for the pupils to perform. The preparation of apparatus by the pupils with the assistance of the teacher, is unquestionably a great advantage, and a portion of the instructor's time will be required to assist the pupils in this work. Just now, when so much is written about the slight expense necessary to fit up and furnish a laboratory, there is danger of going to the extreme and using too much of the teacher's and the student's time in making apparatus. If, for any reason, apparatus cannot be made in the laboratory, it should be purchased, for, certainly, the illustration of important principles should not be omitted for the lack of time to prepare apparatus.

Many of the text-books prepared on the experimental plan do not evince sufficient definiteness in the selection and arrangement of experiments. The ultimate object of all class exercise should be to teach the pupils how to work, not to amuse them with experiments, or to teach them a certain number of facts. This principle is particularly liable to be violated in the teaching of Chemistry. It is not sufficient that the students perform experiments; but class experiments should be selected with the utmost care, and logically arranged, so that in the performance of them and the observation of the phenomena, the pupil will acquire the underlying principles of the science, and thus lay the foundation for subsequent study and reading. Thorough teaching in science enhances the fascination in the pursuit of these branches.

W. G. RAPPLEYE, OSWEGO NORMAL SCHOOL.

That science should be taught in secondary schools is no longer an open question. The questions are now "How much" and "How".

Inasmuch as the best colleges have placed or are placing science on the same plane with the classics, then the secondary schools ought to do the same. In order to maintain this equality, the student who enters college with a scientific course in view ought to be as well prepared in science as the student who takes a classical course is prepared in the classics. The amount of instruction given in science ought to be commensurate with that given in the classics.

How shall instruction in science be given ? First by a teacher who understands and is interested in his subject. In too many cases the teaching of science in secondary schools is simply wretched, and chiefly because the teacher knows only so much of his subject as is contained within his very elementary text-book, and not always as much as that. There is a class of teachers, above this list to be sure, whose chief qualification is enthusiasm. A deal of prating about "the sublime laws of nature," "the great laboratory of nature" and the like is indulged in, but very little solid work is done by the unfortunate students of such teachers. I am not decrying enthusiasm by any manner of means, but between mere enthusiasm, *gush*, and scientific knowledge and work there is a great gulf fixed. Of the mere gushers it was written, "and have no root in themselves and so endure but for a time." The work done by this class of teachers, must from the nature of the case, be slip-shod, mere hodge-podge, and nowhere is such work more to be deplored than in science.

The only way to make the teaching of science effective, to make it scientific, is by the use of real things. This requires apparatus and natural history specimens. To provide these is not so expensive as many suppose. For $200 a school might have a very respectable supply of apparatus for chemistry and physics. If possible, a laboratory and apparatus should be provided where *every* student may do individual work. Not that each one is to become a specialist, but in order to get the real spirit of scientific study some laboratory work should be done.

The plea is often made that there is lack of time. This is fancy. If any time at all is to be given to science, some of it may be given to laboratory work. "Where there's a will, there's a way," and if the teacher has the requisite knowledge, energy, and, above all, common sense he may, under the most adverse circumstances, organize a department of science where real, scientific work may be done.

A HUMANISTIC CONFESSION OF FAITH.

The following theses emanate from a German source of high authority, and indicate the line of defense which the strict conservatives will adopt in maintaining the existing order in secondary education. Our readers will find it interesting to observe to what extent their own thought is commensurable with the German on the classical question.

"1. Our German school system, as it exists to-day, is the peculiar historical product of our national cultural development, and while susceptible of improvement in detail, will not tolerate changes in its fundamental principles. Such changes could not be carried into effect. But even the attempt to make them could not be made without checking and perverting the development of the national spirit.

2. The proper aim of the school is not departmental training, but all-sided mental culture, and especially the disciplining of the intellect, the will and the affections. The secondary school is not an institution for preparing for the university and for special scientific vocations. Its social and political significance consists in the fact that it equips its pupils for belonging to the directing class with becoming dignity.

3. The essential foundation of all school activity is instruction in language, as leading to the comprehension of the human spirit in its noblest form of expression, and to the attainment of facility in the understanding and the use of speech. Such training of the mind to the understanding of the thoughts of others, and to the critical control of one's own thinking, is most surely attained through the medium of the ancient classical languages and literatures, on which all further lingual instruction must be founded. Every curtailment of classical studies for the governing class, signifies enfeeblement and stunting of the national spirit.

4. Among scientific studies, mathematics stands nearest to the languages in disciplinary value, and, to the extent, perhaps, to which it is now pursued, serves as their necessary complement. In virtue of the paramount importance of their content, religion and history must be included in the scheme, and as ancillary to the latter, geography. The natural sciences in any kind of school, possess only a third rate importance, and must content themselves with that allotment of time and strength which the weightier purposes of the school leave them. The reason of this is that the natural sciences, by the very fact of their being sciences, stand too high for the school, because they lead, not to nature, but away from it, and demand a measure of power of abstraction that can not with impunity be deemed within the competency of youth.

5. The modern real gymnasium, in its coordinate position beside the humanistic gymnasium, is an historically justified product of our modern development. But it can maintain its importance as a school for the governing class only so long as it continues to aim essentially at imparting human culture, and for this purpose makes use chiefly of the Latin language and literature."

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

The growth of the Agassiz Association and the increasing interest in studying nature has led to the establishment of a special organ, styled *The Swiss Cross*. For several years a portion of the space of *St. Nicholas* has been devoted to this work, but the needs of the association are greater than can be supplied in that way, and we are glad to see that this new venture takes so excellent a form. We especially commend the title which happily connects the enterprise with the birthplace of Agassiz. It is published monthly at $1.50 a year, by N. D. C. Hodges, 47 Lafayette Place, New York. Subscribers to THE ACADEMY may receive *The Swiss Cross* by sending $1.20.

With Andrew D. White's article in the February *Forum*, the series entitled, "How I was Educated," ended. With the March issue will begin another, of which Edward Everett Hale writes the first number, on "Books That Have Helped Me." The former series was of special interest to teachers directly, because it suggested vividly how some have succeeded and others failed in the work of education. It plainly emphasized the importance of the personal element, and showed that after all the best and most lasting part of any man's work depends on his character. Indirectly it interests us to know that the vocation of teacher is regarded as important enough to occupy for more than a year a leading place in a magazine of the high rank, both literary and practical, which the *Forum* maintains. It is no small thing to be worthy of criticism by those to whom we look up.

We have just received the preliminary announcement of the National Educational Association. President Sheldon is a tireless worker, and he has the additional advantage of knowing everybody in the educational world. Besides this, his long connection with the association has made him familiar with every annoyance or drawback by which a meeting can suffer. He accepted the office last summer with no object except to make the best educational meeting possible. And apparently he is on the high road to success.

These enormous gatherings have their disadvantages, but there will be some sense of due proportion in having a monster meeting at Chicago, just as there was no sense of proportion or fitness in the gathering last summer at Topeka. Everybody wants to go to Chicago sometime, and there will be little chance of a better opportunity. Round trip tickets from all principal stations to Chicago and return for one fare, plus $2.00 for membership fee. Return tickets good till September 10th. Besides the ordinary excursions, special ones have been arranged to Alaska, Mexico, the Yosemite, the Yellowstone, &c.

The readers of THE ACADEMY will be specially interested in the newly organized department of secondary instruction. Mr. Samuel Thurber, of Roxbury, Mass., Mr. A. F. Nightingale, of Chicago, and Miss Minnie C. Clark, of Boston, will read papers, the exact titles of which we shall announce later. The programme will not be crowded, and ample time for discussion will be allowed.

The editor of THE ACADEMY has been the fortunate recipient of many school catalogues and circulars during the past year. He returns thanks, for in many cases these have been of real service to him in investigations regarding secondary education, and he expects to make still further use of them in preparing certain statistics which may eventually be printed. He would like to make, however, one suggestion. Before him at this writing lies a circular which contains the names of all the teachers, full information regarding terms, buildings, expenses, *situation*, admission, etc., but not a hint as to location or address. There is no name of city or town, county or state. It may be in New Orleans or San Francisco or Portland. We judge it is in a city for it is on Linden Avenue, and the charges are rather high. This is not a special case. There are many such. In some cases the printer's mark gives some indication, but in very many there is no possibility of finding out where the school is. This has even been true of a twenty-four page catalogue. It used to be said of Horace Greeley that an envelope addressed with simply his name and no post-office address, would reach him from any part of the United States. Perhaps some of these schools are aspiring to a like distinction.

The *Revue Internationale de l' Enseignement* for January 15, has the following in its correspondence, on the Latin question in Egypt:

CAIRO, December, 1886.

The Latin Question has had its echo upon the banks of the Nile, and when the regulations of the Law School at Cairo were established last July, instruction in this language was wholly given up.

The chief arguments in support of this reform are such as have already been discussed in this review. Overburdening of the mind was especially feared.

Before the mixed tribunals of Egypt three languages are allowed in trials,—Arabic, French, Italian. These, therefore, must be taught at the Law School. The knowledge of the two first is required for admission; the study of Italian is begun in the School itself. To add to these three Latin, it was said, was to require too much of the young students. As a knowledge of judicial Latin only was sought, a special method, adapted to these particular conditions, was adopted. The result attained has been that the student on leaving the School could translate freely at sight the Institutes, write at dictation, and translate, with the aid of a dictionary, passages of the Digest.

The new schedule of studies did away with all this. The consequences of the reform have been wholly unexpected. Three months had scarcely passed when the Professors of French and Italian began to complain of a very marked lowering of the standard of the linguistic attainments of their pupils. The students themselves, whose studies it had been proposed to lighten, much regret the suppression of Latin, which assisted them in the study of French and Italian. It is possible, according to the present outlook, that the reform will be but a temporary, though decisive, experiment, and that at the opening of the new school year, there will be a return to the old method, which had been considered so erroneous.

The Rev. R. H. Quick, well known in this country by his book on "Educational Reformers," prints in the *Journal of Education*, (London) for February, an abstract of Prof. Paulsen's concluding chapter, which the subscribers of THE ACADEMY received in full as a supplement to the January number. Mr. Quick enters fully into the spirit of Paulsen's ideas. We quote from the introduction with which he prefaces his abstract:

"One thing is by this time tolerably certain. The curriculum of the twentieth century must differ widely from the curriculum of the present, just as this differs, though chiefly by disintegration, from the curriculum handed over to us from the eighteenth century."

"To consider only the higher instruction, viz., the instruction which has its natural completion at the University, the question arises: Shall this be, as in the eighteenth and first half of the nineteenth century, exclusively classical? Shall it be an attempt to teach classics and everything else, as it is in some schools at present? Shall it be frankly scientific? Or, lastly, shall we scheme a new literary training to be independent of the ancient languages?"

"There is not much chance of our giving careful consideration to this knotty problem, We shall go on in our happy-go-lucky fashion, trying small alterations to show that we are moving with the times, and then congratulating ourselves on having kept things substantially as they were. We shall appoint science masters in classical schools, and be pleased if we find them so incompetent that they 'can't do much harm', or, modern language masters, and give them twice as many pupils as it would be possible for them to teach."

"But while we are thus introducing 'improvements' which we ourselves do not consider 'good improvements,' the Germans, after their fashion, are thinking out the whole thing, and their educational Moltkes are studying the past and the present in order to forecast the future."

"Great interest has been excited in Germany by the weighty chapter with which Dr. Paulsen concludes his 'History of the Higher Instruction in Germany,' I have not seen or heard any mention of it in this country, and it was not, I believe, referred to at the Head-master's Conference, but the study of it may have at least this source of interest for us, that it will help us to connect the ripple in the cave with the big waves outside."

The January number of *Education*, though late in its appearance, contains excellent matter. The opening article, on Wellesley College, is evidently written by no enemy of that admirable institution, and is rather gushing in its tone for a sober educational paper. Mr. Missimer's article, *A Practical Education: Does it Educate?* is one of the best papers that have appeared in recent educational literature. It is not necessary to agree with the writer in every point, but the spirit and tone of the article fully sustain Mr. Missimer's reputation as one of our best secondary teachers.

In an editorial note, however, in the new *Common School Education* Dr. Mowry directly opposes the views of Mr. Missimer, and advocates introducing the type-writer into schools. So does Principal Morgan, of the R. I. Normal School, in a brief signed article in this same number of *Education*. Where doctors disagree, who shall decide? Sometime, if the public school system is not to be abandoned entirely, we shall have to come to some conclusion as to the real object of popular education. The creed of many at the present time, and among these we are sorry to see Dr. Mowry and Principal Morgan, is that training to get one's living is one large purpose of education. Here in New York one can get an competent type-writer for just one-half what one pays a woman to wash windows. That indicates something as to the supply and demand in the two occupations. If capacity to earn wages is a standard, by all means let us recognize it and act accordingly. Thus we shall arrange courses of study that shall fit young girls to go into occupations where labor is scarce and well paid. Of these occupations there is at present no lack, but they are not such as commend themselves to educational writers.

As for the educational value of the type-writer, we hold it in light esteem. The trick of manipulating the keys is easily learned, but to spell and punctuate well, to write a courteous and graceful letter, to recognize and correct mistakes or infelicities in expression is quite another thing, as any business man knows who has wrestled with stenographic and type-writing problems in his own office. The mental training involved in the acquiring of manual dexterity is slight. The most rapid work on a machine the writer has ever heard of was done by a girl of twelve, who couldn't obtain employment at a dollar a week, and this manual dexterity is a thing easily attained whenever there is need. It seems demonstrable that teachers can hardly stand with confidence before the public as advocates of our school system until they can find out what the schools are for. For one we are convinced that the object should not be preparation to earn money.

The paper of Supt. Marble, of Worcester, on the *Presumption of Brains*, published in the *N. E. Journal of Education* deserves a wide reading. The fashion now so common of presenting to children's minds only food that has already been thoroughly masticated has resulted in a kind of mental dyspepsia. Where "methods" have had full sway, one finds much the same result that might be expected in a child who had never been allowed to feel hungry or chew his food or exercise his salivary glands on anything but spruce gum. There comes a mental nausea that turns away from further surfeit, and an intellectual lassitude that shrinks from all exertion. Many teachers are vainly searching for a pupil who is curious, "anxious to know, you know." Occasionally one finds a neglected waif who has escaped exposure and so is unharmed, or one whose mental constitution was so vigorous and hardy as to throw off the effects of the virus, but these cases are discouragingly rare.

BOOKS RECEIVED.[*]

A Third Reader. Stickney. Boston: Ginn & Company. 1886.

A Companion First Reader. By M. J. Wood: New York, Boston, Chicago: D. Appleton & Company. 1887.

Scenes of Travel. Selected and Edited by George Saintsbury, Oxford, at the Clarendon Press. 1886. Macmillan & Co.

Racine's Esther. Edited with introduction and notes by George Saintsbury. Oxford: At the Clarendon Press. 1886. Price, $ .50.

Literary Salad. A Game of Instruction and Entertainment. By Rose Porter. Price, 50 cents, Chicago and Boston: The Interstate Publishing Company.

The Riverside Literature Series, Number 21. *Poor Richard's Almanac und other Papers.* By Benjamin Franklin. With notes. Boston: Houghton, Mifflin & Co.

Hand-book for School Trustees. A Manual of School Law for School Officers, Teachers and Parents, in the State of New York. Syracuse, N. Y.: C. W. Bardeen, publisher. 1886.

Primary Lessons in Language and Composition. By W. H. Maxwell. M. A., Associate Superintendent of Public Instruction, Brooklyn, N. Y. A. S. Barnes & Company, New York and Chicago.

Mathematical Teaching and its Modern Methods. By Truman Henry Safford, Ph. D., Field Memorial Professor of Astronomy in Williams College. Boston: D. C. Heath & Company, publishers. 1887.

School Elocution. A manual of Vocal training in High Schools, Normal Schools and Academies. By John Swett, Principal of the San Francisco Girls' High and Normal School. New York: Harper & Bros., Franklin Square.

Faust. By Goethe. With an introduction and notes by Jane Lee, Lecturer in German Literature, Newnham College, Cambridge. Part I., followed by and appendix on Part II. London: Macmillan & Co., and New York. 1886.

Drill on Latin Inflection. By means of Cards covering the five Declensions of Nouns, Conjugation of the Verb Sum, and of the Four Irregular Verbs. Careful directions for use of Cards accompany each set. Copyright 1886. By Franz H. Kirmayer, Bridgewater, Mass.

Tanglewood Tales for Girls and Boys, Being a second wonder-book. By Nathaniel Hawthorne. Part II. Circe's Palace; The Pomegranate Seeds; The Golden Fleece. Houghton, Mifflin & Co. Boston: 4 Park St.; New York: 11 East Seventeenth St.; The Riverside Press, Cambridge. 1887.

The Riverside Literature Series, Number 22. *Tanglewood Tales for Girls and Boys.* Being a second Wonder-Book. By Nathaniel Hawthorne. Part I. The Minotaur, The Pygmies, The Dragon's Teeth. Houghton, Mifflin & Co. Boston: 4 Park St. New York, 11 East Seventeenth St. The Riverside Press, Cambridge. 1886.

How to Strengthen the Memory, or Natural and Scientific Methods of Never Forgetting. By M. L. Holbrook, M. D. New York: M. L. Holbrook & Co.

This is not, as the name might imply, a system of mnemonics, but a series of very sensible suggestions on the art of remembering. The author recognizes very properly the necessary limitations of his subject, and brings forward no patent method of achieving the impossible. His suggestions are practical. There is nothing supernatural or marvellous in any of his propositions, and we think his advice cannot fail to be helpful. The basis of his theory is common sense supplemented by some special knowledge of the subject of which he treats.

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[*] Any of these books may be more fully noticed hereafter.

A Brief Compend of the History of the United States. Arranged for the use of teachers and pupils. By Martin L. Smith, Principal Sixth Ward School, Racine, Wis. Boston and New York: Leach, Shewell & Sanborn.

This is just what it pretends to be, a list of topics in American History arranged chronologically and occupying forty duodecimo pages. It is interleaved, thus greatly increasing its valne. Altogether it is the best book of its kind that we have seen.

Standard Selections, for elocutionary drill and memory work in Grammar and High School, compiled by John D. Billings, Principal of Webster School, Cambridgeport, Mass. Chicago: The Interstate Publishing Company.

Josh Billings used to say "It's better not to know so much than to know so many things that are not so." We are reminded of this remark by reading, page 91; Mr. Billings' note "The Pantheon, at Rome, *now comparatively in ruins*, is one of the most splendid remains of the ancients." The Pantheon when last heard from was the best preserved ancient edifice in Rome. We commend Mr. Billings' remark to the notice of his namesake.

The Princess. A Medley. By Alfred Lord Tennyson. Edited with Notes by William J. Rolfe, A. M. With Illustrations. Boston: Ticknor & Company.

Select Poems of Alfred Lord Tennyson. Edited with notes. By William J. Rolfe, A. M. With Illustrations. Boston: Ticknor & Company.

The Young People's Tennyson. Edited with notes. By William J. Rolfe. With Illustrations. Boston: Ticknor & Company.

Childe Harold's Pilgrimage. A Romaunt. By Lord Byron. Edited with notes, by William J. Rolfe, A. M. With Illustrations. Boston: Ticknor & Co. 1886.

The Lay of the Last Minstrel. By Walter Scott, Bart. Edited with notes by William J. Rolfe, A. M. With Illustrations. Boston: James R. Osgood & Company. 1887.

The Lady of the Lake. By Walter Scott, Bart. Edited with notes, by William J. Rolfe, A. M. With Illustrations. Boston: James R. Osgood & Company. 1885.

Marmion. By Walter Scott, Bart. Edited with notes, by William J. Rolfe, A. M. With Illustrations. Boston: Ticknor & Company. 1885.

These editions are the best for school use that we have seen. The illustrations are from the holiday edition of the same poems published some time since, and are well-known for their beauty and appropriateness. The notes are fuller than those in most editions, and of a better quality. The price is not higher than that of inferior editions, and they will be found not less suitable for general use than for school work.

Maury's Physical Geography. Revised Edition. New York: The University Publishing Co.

This book is written in a charming style; the language is plain and simple; long words and technical terms are avoided except where necessary. The topical analysis is a good feature. The test questions are few in number, but they are well calculated to lead the student to think, and to draw conclusions for himself. The book is profusely illustrated. Some of these illustrations convey ideas that could not be easily conveyed by means of words; those on pages twenty-one, thirty-nine, forty-eight and eighty-nine are especially good. On the other hand the book has some defects. The statements regarding the amount of heat and cold on the planets, (page 10) are arbitrary, and do not rest on sufficient proof. The theory of earthquakes, given on page twenty-two, is old and exploded. No mention is made of the important facts that earthquakes occur most frequently at new and full moon, more frequently at night than during the day, and more frequently in winter than in summer. The important subjects of rocks and soils is entirely ignored. On the whole, however, the book is above the average text-book on the subject.

School-room Games and Exercises. Compiled and written by Elizabeth G. Bainbridge. Chicago: The Interstate Publishing Company.

This is a book of one hundred and thirty-five pages of which ten are devoted to geography and history helps, forty-four to spelling and composition helps, seventeen to the arithmetic class, four to special hours and days, four to calisthenics, and thirty-six to puzzles and problems. The work throughout is of unusually good quality. There is much in it which will be new to any one reader and much that may be of real service in the school room. There is still more that will be indirectly helpful, and will give pleasant hours of healthful recreation, contributing not less than the regular routine of school work to mental growth. We commend the book highly to all those who would like something to interest their scholars and bring teachers and pupils together in recreation.

Select Poems of Robert Browning. Edited with notes. By William J. Rolfe, A. M., and Heloise E. Hersey. New York: Harper & Brothers, publishers, Franklin Square. 1887.

The method of this book is entirely different from that of Prof. Corson's, which we noticed in the January ACADEMY. The editors attempt no broad treatment of Browning's genius, or his place in literature. Capital extracts are given from some of the best writers on Browning, and with a brief note, which is thoroughly sensible, the curtain is drawn and there appears a number of pieces from the author, ending with the drama of *Pippa Passes*. Perhaps no two Browning lovers would agree as to what selection of one hundred pages from his works would best represent the author. To us it does not seem that the selections here made are open to serious criticism in any respect, and many of them could not be improved. The editors have shown excellent sense in refusing to pose as *explainers* of Browning. They offer help in understanding allusions, and present valuable side lights at many points, but they leave the poet and the reader to come to an understanding undisturbed. Browning is not "milk for babes," but "meat for strong men," and attempts to come at him on any theory of simplification, are futile.

Niebuhr's *Griechische Heroen-Geschichten.* Tales of Greek Heroes. Edited with English notes and a vocabulary. By Emma S. Buchheim, Oxford: At the Clarendon Press. 1886. Price, $ .50.

French Readings from Roman History. Selected from various authors and edited with notes, by C. Colbeck, M. A. Assistant Master at Harrow school. London: Macmillan and Co., and New York. 1886.

These books serve two valuable ends: they furnish excellent practice in reading a foreign language, and the subject matter being within the limits of ordinary secondary school work, they offer a means of getting up certain historical requirements at the same time that one is learning the modern language requirement which is now exacted at most of our best colleges. They are very easy and furnish excellent reading for those not far advanced in French or German. That Niebuhr's Heroen Geschichten has recently been adopted as one of the text-books in the Oxford local examination, shows in what esteem it is held by competent authorities. The German is delightfully clear and simple and the story is intrinsically interesting. The French readings are made up of extracts from Montesquieu, Mommsen, DeBeaufort, Thiery, Michelet, Saint-Real, Naudet, Crevier, Vertot, Deseur, and others with translations from Mommsen, Plutarch, Livy, and Cæsar. The whole comprises 352 pages. The books are both published in the excellentform common to Macmillan's works.

New Historical Atlas and General History. By Robert H. Labberton. New York: Townsend MacCoun.

This book is made up of two parts; first, seventy-one plates, on which are pictured, in a way to be recognized at a glance, the extent of country occupied by various nations and peoples from 3800 B. C., down to the present time; secondly, one hundred and eighty-four pages of text, in which is given a brief and connected outline of the world's history during this time The plates are all new, and are executed in the best style. Many of them are subdivided in such a way as to illustrate several different periods on a single plate. The value of this graphic representation is inestimable. In the making of these plates, as well as in compiling the text, Mr Labberton has made use of the best and most trustworthy sources of information. The book is an indispensable help to every teacher and student of history, and nowhere else, we believe, can so much valuable and available material be found in the same space and at the same price.

Twenty-nine tables of genealogies and a full index are included in the work.

Principles of Hygiene for School and Home, together with so much of Anatomy and Physiology as is necessary to the correct teaching of the subject. By Ezra Hunt, A. M., M. D., Sc. D. New York and Chicago: Ivison, Blakeman, Taylor & Co.

This book, as its title suggests, attempts to set forth the laws of health rather than to describe the parts of the body or discuss their functions. Only so much of the latter is introduced as the author thinks indispensable to an understanding of the former. He recognizes the fact that a man may know every detail of anatomy and yet fail to be in health from neglect of some easily-mastered hygienic principle. It goes without saying that a knowledge of the conditions of health is of infinitely more importance than any amount of knowledge of the body. Yet school-books, almost without exception, are made as if the means were really the end, and most teaching is done on the same faulty theory. This book simply follows a sensible and rational plan.

Dr. Hunt, after discussing the relations of Hygiene to other sciences, and the reasons for teaching it, devotes three chapters to the earth, water, air, light, sun-heat and climate, as related to health. Now that by legislative enactment certain things are required to be taught to children, it would not be amiss to take a more important step and require every citizen to master the elementary conditions on which health depends, so far as externals are concerned. There is scarcely a household in the country where the simple principles set forth in these chapters are fully recognized. The author makes no display of learning, but quietly puts in compact form the best results of sanitary science. He gives plain directions and simple tests. Though not above the comprehension of the average youth, they are worthy of the serious attention of men and women, and careful following of them would entirely rid us of much disease and suffering.

In the succeeding chapters on Anatomy, Exercise, Clothing, Dwellings, Heating, Ventilation, etc., the real object of the book is kept constantly in view. So, too, in the discussion of the skin, the circulation, the lungs, the nervous system, and the senses, the fascination of the special theme does not draw the author away from his normal purpose, the healthful preservation of each separate function. In treating of food, digestion, drinks and stimulants, he shows himself the victim of no special craze, and introduces no extreme views. Altogether, the book is sensible, practical and helpful, a book for parents and teachers as much as for pupils. The author is not above going into practical details, and has embodied here in brief form the results of that special study which in the past few years sanitation has received at the hands of experts.

THE ACADEMY:

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DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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*THE ANNOTATION OF CLASSICAL TEXTS.**

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That this is an age of *books* is nowhere more true than in the domain of school and college texts. They are multiplied to a degree that is marvellous ; and how they all make a place for themselves, and a profit for their publishers, is a mystery which I have never been able to explain. Ancient and modern classics come in for their full share of new editions; and yet, in spite of all this, we are apparently as far removed from the ideal, that has come to *stay*, as ever. No sooner do we settle upon the latest production with a feeling of profound relief that we have the best, than the bland book-man convinces us, *nolens, volens*, that we are quite antedeluvian; and we feel called upon to try a still newer edition that has just startled the world, indeed, the *acme of perfection.* And so it goes from one book to another. The situation is truly peculiar, where an army of specialists on the one hand can not permanently satisfy the educational needs on the other; or, I should rather say, *apparently* can not satisfy them. A school book that lives ten years is quite a patriarch. Most of them do not flourish half as long. To-day it is, to-morrow it is cast into the waste-paper basket, and its place knows it no more. In the department of ancient languages, with which I am most familiar, new editions have been *epidemic* of late; particularly in the prepar-

* A paper read at the February meeting of the Michigan Schoolmasters' Club.

atory courses. In Cæsar, for instance, it is hard to see what is left for an improved edition, except to throw in the necessary brains all for the same price. My own opinion in the matter is that many of these books have no *raison d'être*; that, though they may possess additional matter of interest, it is not matter which adds to the value of the book, but may be rather a disadvantage to it considered in its true sense—that of an educational agent. Golden-mouthed Persuasion in the person of Mr. Tom, Dick, or Harry, the agent, is apt to throw such a strong light upon these additions in one place, and omissions in the other, that they seem the one thing needful; and the book is sold—and so are we—irrespective of the merits or demerits of the rest of the work. Books are like fashions, a little cutting away, a little new material, and we have a new style, attractive deceitful, made to *sell*.

The preparing and publishing of books, particularly in the lower grades, is a pure matter of business. Everything is done to catch the popular taste, to start a new style. How slight a change forms the excuse for the blatant appearance of a new edition, is illustrated by a well authenticated story about a well-known editor of text-books in our own country. The work was a French reader, and when, after a long delay presumably spent in an arduous revision of the old work, the new text appeared, a careful examination could discover but two changes:—first, the editor had added to his name on the title page a newly-acquired degree; second, the French "*bas*" had been translated into the English "*socks*," instead of "*stockings*," as before. It is well that "hope springs eternal in the human breast;" for it is that which, in the midst of our general dissatisfaction, makes us ready to accept with joy each successive new edition, and which keeps us proof against disappointments.

As has been already said, the state of things just described applies in general only to the lowest class of school-books. In the annotation and the publishing of the classics, we have a different problem. The desire to secure large sales by means of some artificial and worthless innovation, is generally absent. The editor is a learned and trained specialist whose end is not money, but honor for scholastic attainments. As a teacher of experience, he adapts his book as well as he knows how, to the work he is to do. This being so, it is a strange but melancholy fact that in *these* grades, too, edition after edition, change after change, is demanded by the general dissatisfaction with what we have. We all have our ideal of what a text-book in language should be, and discontent is rife among us. Still we should remember that the texts which we criticise so freely are the expressed ideals of specialists in their departments, and that if you or I should enter the arena, our productions would be equally or even more deficient than theirs in the eyes of all but ourselves. For this reason, I confess that I felt some hesitancy in entering the lists, and giving you my idea of what a model, annotated text should be; but, being there, I shall use a free lance; and, if our ideas clash, may they emit sparks which will throw light upon this difficult subject. I call it a difficult subject, because it has been centuries in passing through its various and interesting phases, and has not yet perfected its circle. As long as there have been texts there have been *commentators*. The scholiasts of Alexandria undoubtedly annotated texts for the same purpose, in the main, which is active now. They spent their labors in making the master-pieces of literature more accessible in every way to the understanding, not only of natives, but also of the foreigners, who flocked to Alexandria to get wisdom. They have thus given us an idea of the ancient text-book. Their notes were to teach *literature*, their remarks apply only to criticisms of the text, and to explanations of the precise meaning of words and allusions. Grammatical points are, so far as I know, entirely omitted; probably as being out of place; and, indeed, unnecessary to scholars in that day. Still, we have many instances of ancients wrangling and quibbling about matters of construction, etc. Our commentaries on the classics have made but little change from the scholia in their scope and subject matter. The school and college text-books—the off-shoot of these—are a more modern invention; and it is the annotation of these, our daily companions, ranging as they do through all grades of language-study, which we are to consider "*par excellence*," a practical theme in a practical way. And let me at this point ask your indulgence, if, in this discussion, I treat most fully the Latin and Greek classics. My experience has been with them; they may be taken as the types; and what is true of them is equally true of all.

It is evident at the outset that the character of the annotations must differ according to the use for which the book is intended, e. g., *Cæsar* and *Minna von Barnhelm* should and would in most cases receive very different treatment, if they were not for beginners. But in all grades, I would cry out against one feature of many notes as now found, a feature, which, when present, is in my judgment, the bane of good scholarship, viz: the wholesale and retail translation of difficult passages. Happily "*Anthon fuit*," and his "*ineluctabile tempus*" has come. Let no one put "*Resurgam*" on his literary remains! It seems hardly necessary to point out the folly of such annotation, and, doubtless, there are no supporters of it here to-day. But there may be some who believe that even here there is an *aurea mediocritas*, a golden mean, which may be and should be sought after. On this point I would take issue. It is my firm and unhesitating opinion that, with the sole exception of idioms, there should be *no translations* in the notes. All translations, except those mentioned, are based upon grammatical and common sense principles, and a judicious reference to these will throw light upon the whole difficulty. Who of us has not had this experience; a glib translation of what the notes say, without the dimmest idea of the sense ; or, an appreciation of the sense, but no knowledge of the meaning of individual words, or of the constructions involved. Few scholars are honest enough with themselves to put thorough work upon what has been done for them. Only the other day, one of my most faithful pupils stopped short in translating before a place of little difficulty with the words, "Dear me! That's translated in the notes, and I have forgotten what they say." To make matters worse, the teacher himself often depends on this crutch for a good translation. We then have a species of intellectual slavery destructive of all mental *independence ;* a sterling quality, which is worth incalculably more as an object of education than the ability, or rather *debility*, to repeat, in a slavish way, what Mr. Harkness, or some other man, says he thinks that Cæsar said. How often, too, it happens that bright scholars, sometimes a whole class, are befogged by a foggy translation; when, if left alone, they would have kept their mental vision clear. Let a boy know his grammar well, put a good vocabulary into his hands,—to be used with discretion, however—and leave him to work out his own work in his own way. He is sure to come out right if he has it in him. Boys and girls, who are well and strong, don't enjoy direct assistance nearly so much as we are apt to think. When I was in college, there was always a good deal of talk about the so-called "*snaps ;*" a word whose etymology is unknown, but whose meaning is plain. Yet the really popular and valued courses were not these. Young people,—like ambitious explorers—love to climb steep hills, to make their own discoveries. I shall therefore begin my creed with, "I believe in *notes* with *no translations*, idioms only excepted."

Having eliminated this factor from the whole problem, we are ready to examine its remaining parts in detail. It will, perhaps, be best to begin with classics in the lowest grades and work up from them. It will be admitted by all that the authors first read must be made a sort of *pons asinorum* to all that is to follow—in other words, it is here that grammatical drill it to be done. But it is at this stage of the work that scholars are most apt to lose interest and become disheartened. The question is then, "How shall we combine thorough drill and interest in a text book?" My first suggestion would be, that hints and suggestions take the place of references to the grammar as much as possible. The first introduction to the classics, as usually made, must, I fancy, bring to the victim's mind Ezekiel's vision of the valley full of bones, and cause him to echo the prophet's words, "Lo, they are very dry." After the *few fundamental* rules have been mastered, the learner's common sense, if he is left to use it, will be much more apt to lead him right, than multitudinous rules which he does not understand and can not apply. His text book should lead him to give more exercise to his common sense and brains than to his thumbs. Timely pointers, based upon corresponding English constructions, leading the scholar to the independent discovery of underlying principles, should take the place of many of the references. Another matter in this connection which I would change, is the constantly recurring reference to the same rule. I believe that such reference should, in any text, be made once for all. Thereafter, refer not to the grammar, but to the last instance of the case in hand in the text. This practice would insure a thorough understanding of what precedes and of the principle involved, rather than a senseless knowledge of the rule. We have all had scholars who could repeat rules *ad infinitum*, but who could not write a decent Latin or Greek sentence It is the natural consequence of learning the rules referred to in the text, without being forced to see the application of the principles involved, excepting in individual cases. I would, therefore, have the notes refer but once to the grammatical rule for a construction, after that, let the reference, in each case, be to the last instance of that constructron. Scholars will then make their own rules in their own words and understand them.

Next in importance after grammatical annotations, I should place notes aiming at the formation of a vocabulary. These are, at present, conspicuous by their absence in most text-books. We must have an association of ideas to remember words. It is the natural, and only feasible way. Is it, then, not altogether fitting that the notes should suggest the association? That is what I had in mind when I said, a few moments ago, that a scholar should have a good vocabulary at hand; but should use it only as a last resort. Furthermore, the study of a foreign language has for one of its main objects training in the use of English, and increased knowledge of it, and this can be particularly fostered by a direct study of borrowed words. This is true of all languages studied in our schools, but especially of Latin, where I have no hesitation in saying, that a study of the borrowed words ought to form a considerable part of the early work as an aid both to English and to Latin: I believe that the learner's knowledge of his own tongue, when he begins the study of the classics, is generally inadequate to a correct translation. Considerable of this training, in Cæsar and Anabasis, will be beneficial both to those who drop Latin or Greek at the close of the preparatory course, and to those who go farther and aim at a facile and elegant translation.

Finally: how much additional matter should the text contain, that relates to geography, biography, history, etc.? There seems to be, just now, a tendency toward excessive annotation in this direction. The student comes to this work with his mind in Ægyptian darkness on all these subjects; and it is, no doubt, true that he must be given some light to prevent his falling into all sorts of pit-falls; but we can't teach everything at once, and at this stage we *must* teach so much that is absolutely essential, in matters of grammar and syntax, that we must leave everything else, or slight what is fundamental. Harkness, in his last edition of Cæsar, deemed it not excessive to give no less than forty-five pages, together with numerous colored plates, to the military system of the Romans, following the lead of F. W. Kelsey, who, I have heard, got his idea from a German edition. No one can find any fault with an illumination of this subject in connection with the immortal commentaries; and the plates are interesting and instructive; but, if the learner is expected to give this subject anything more than the barest consideration, it will be more of a hindrance than a help to what is proper Cæsar work. "But," some one says, "how are you going to fulfill the second requisite,—that of keeping up the class interest,—if the notes contain little or nothing of this entertaining matter?" In reply let it be said, that *interest* and *entertainment* are by no means synonymous. Profitable interest is often quite the reverse of the latter. The study of languages, *per se*, may be of absorbing interest, even at the outset, by the use of the legitimate means already set fourth. My idea will be clear without further amplification, when I say that in the study of the first classic, nothing should be laid upon the learner's shoulders that takes the attention away from the language, and does not add something indispensable to a fairly intelligent translation.

Let me now summarize, and finish my creed on the first classic. I believe: first, in notes with no translations, excepting of idioms; second, in *hints* and *suggestions* leading to a knowledge of constructions, in place of all but the fundamental rules; third, in referring a construction but once to the rule as found in the grammar; fourth, in a constant building up of a vocabulary by comparison with English derivatives; fifth, in scant treatment of history, biography, geography, or national peculiarities and customs.

When we pass into the next grade of language-study, corresponding to the Cicero year in Latin, there should be a radical change in the character of the notes. It is bad enough to be under the necessity of using any classic as an *equus grammaticus*. Let us be content with one beast of burden, and not put all literature to this humiliating and unworthy use. If the first year's work has been well done, the learner is now able to construe with comparative ease. The notes should recognize that fact and omit matters grammatical, except in the case of a new or unusual construction. Yet I came across a Cicero the other day, where the astounding facts that the object of a transitive verb is in the accusative, and that *means* is denoted by the ablative, were religiously and consistently referred to the grammar for explanation, not once but scores of times. Ask a boy who has finished such a text-book, who Cicero was, and he will answer that he was a proper noun in the nominative case. This is putting a sixteen inch neck into a thirteen inch collar, and poor Cicero dies from strangulation. The time taken from grammatical drill may now be profitably spent partly in increased attention to word-study. Let the vocabulary be expanded by more frequent reference to borrowed words in our own tongue; and, in connection with this, the notes should make plain the difference in meaning existing between the same word in the two languages. The fact that a foreign word is usually not equivalent to the English word most like it in appearance, can not be made too plain, if notes are to promote accuracy in translation. And this leads, in the next place, to differences existing among synonyms in the language itself. Should the notes take up this subject? Most assuredly. No language study can be complete without it. Without it, a fine and appreciative rendering is impossible. At present it meets with hasty and spasmodic treatment even in annotations to college texts. Yet I honestly believe that nothing is more calculated to make the master of diction *felt* by a class, and that nothing sooner awakens the literary sense. Let the second classic, then, introduce this study, and let its importance grow, the further we advance. Doesn't it seem almost a sin to read Cicero's orations, for example, those master-pieces of Latin diction, content with the rude sketches, without a glimmer of appreciation for the marvels of light and shade which make them immortal works of art? The notes should do what they can to arouse this appreciation. Most scholars begin this part of their course too young to make thorough appreciation possible; but still it is the real beginning of their work in literature. Figures of syntax and of Rhetoric should also be noticed, to fit them for advanced work; and something should be done in the study of the style. I speak of this last requisite, because at present so few can give the characteristics of an author's style even after reading him. The fact is that the notes have not aimed to teach them to criticise such matters, and they translate a consummate master of style into a style of consummately poor English, in happy oblivion of the havoc they have made.

Now I do not mean to say that the notes can treat exhaustively all these things in the second classic; but a good beginning can be made, and the lines marked out, which are to be followed with increased thoroughness as we advance further in our preparatory course; for I hold that all these things are necessary to the full appreciation of classic diction, and must be antecedent to the work which should fill the notes in college texts. As in the first classic, the body of the notes should still be upon the language; but in the first it is the grammar, in the second the words that are to be made prominent. A Latin student who has been guided by notes of this kind, will, when beginning Vergil, be perfect master of his grammar, have a large vocabulary and a helpful knowledge of synonyms, and will know the principal figures of syntax and rhetoric, and the fundamental laws of style. With all this there will be a little acquaintance with matters biographical, historical, etc., which are essential to intelligent translation, and hence find a place in the notes. What equipment could be better? Such preparation insures immediate apprehension of the sense in all essential particulars; and the notes can now, in the college grades, be devoted entirely to throwing the strongest possible light upon it, by the help of History, Geography, Biography, Mythology, and whatever else will put the reader into the closest possible relations with his author's life and times. Text-books designed for scholars who have finished Cicero and the Anabasis, or a corresponding amount of French and German, should devote the annotations chiefly to those subjects. The notes should be well up to what a scholar ought to know and not fall below it. No time or space should be wasted in the treatment of what belongs lower down.

These are the general characteristics of annotations to college classics, but there are a few points, as yet somewhat unsettled, upon which I should like to express an opinion.

First, *where should the notes be?* The general usage in this country and in England has been to put them at the end of the book; in Germany, however, they are always below the text on the lower half of the page. I have sought to gain wisdom on this point by inquiry among those older and wiser than myself, but the opinions given were as divergent as the two systems. After weighing the reasons offered *pro* and *con*, I have come to the following conclusions. In the preparatory work the notes would be better after the text. They, at that stage, contain much that pertains directly to the fundamental principles of translation, and that needs to be thoroughly memorized and learned. In college texts I would have them at the bottom of the page. Then the learner has already received all the mental furnishing necessary to fluent translation, and the notes contain only collateral information. If placed at the end, reference to them tends to break the line of thought, divert the attention, and waste time uselessly. The student has come to where he no longer studies merely to recite, but to improve himself by a wide reading of classic literature, and his notes should be conveniently near, be a help, not a hindrance. Many of the annotations are quotations, from other authors or from the same author, of parallel or explanatory passages. These certainly lose much of their aptness and force, if placed where the influence or comparison cannot be easily made. Many notes are never seen at all because put so far away, and how much time is lost in looking for a note where there is none. Further, these notes require careful study and investigation as well as the text. A use of them, when mastered, during recitation, is no more illegitimate than the use of the text itself. No hurried glance at them at the eleventh hour will assist. I have scholars using both kinds of notes, and have never noticed a falling off in honest work in recitation on the part of those whose notes were before them; but time for additional work was gained by this convenient arrangement. Of course where notes contain copious translations, and things of that sort, they can not be put there—or anywhere else, in my judgment; but I am talking about *notes*, not translations. Notes really worthy of college texts, are so far removed from those suitable to preparatory grades, that the arguments by which the latter are properly relegated to the close of the book, are in no way applicable to the former. There is nothing I long more to see than a going over of American editors to the German practice. There are already some pioneers, conspicuous among whom are the editors of the "College Series of Greek Authors." May the good work go on!

A second point is that of illustrations in the notes. The present tendency is toward profuse illustration. Shall we regard it with favor? I vote "Aye," with both hands, if the pictures illustrate the text and not the text the pictures; for such books exist, where an unfortunate word has called out a most inappropriate apparition. For instance, Cicero speaks of the chair of the curule-ædile. In the notes we have a fine picture of three noble Romans, one of them seated. "This was taken from an ancient gem," we are told. But where's the chair? "The Chair? Oh, to be sure; why, the ædile is sitting on it." Yes, and, like Theseus in Hades, "*æternum sedebit,*' and the learner is as ignorant of the chair as ever. Undoubtedly a drawing of things, unfamiliar to our times and country, will do more to clear up a difficulty than a long, detailed description. No description of the various parts of a body in succession will enable us to take in the entire object at a glance ; or, as Lessing so well says, "We cannot translate the co-existence of things into the consecutiveness of language." Illustrations in some classics, particularly the ancient ones, can, therefore, fill an important place ; but let them be accurate and clear. They are *not* designed to teach ancient art or archeology. Therefore, at the expense of being considered irreverent and iconoclastic, I would favor the modernizing of the illustrations in cases where the fac-simile of the ancient representation is unsatisfactory. E. g., I have a Vergil where repeated reference is made to the details of an ancient ship ; the ship is a fac-simile of a medallion. The engraving is little larger than a five-cent piece, and as an illustration is a complete failure ; a complete shipwreck, I was about to say. Why wouldn't it have been better, if no large and clear ancient drawing is extant, to have a fair and distinct modern engraving of an ancient vessel, made up from all the information obtainable upon the subject. In a word, do not use an illustration because it is *ancient ;* but because it *illustrates.* I hope to see intelligent and helpful illustration carried much farther than its present limits.

Textual criticism is another point which we cannot afford to leave unnoticed. Editors vary much in its treatment. Germans make much of it their text-books, Americans less. I think the latter have taken the sensible course. We must all acknowledge the importance of this branch of learning, we owe much to it, and feel grateful to those intellectual giants who have given us our marvellously emended manuscripts. But the practical question is, does this subject belong to the average college student? I answer in the negative. It is a matter of extreme difficulty, and one requiring a mind of extraordinary training and acumen to judge understandingly between two readings, each of which makes sense. Many such are in dispute and always will be. It is well enough for a Hermann and a Bentley to quarrel and get into a furious rage over the retention or rejection of an iota subscript, for they may be supposed to know what they are talking about,—though I have often doubted it. To most students, however, such matters are uninteresting and unprofitable because not understood. My suggestion is, that in preparatory courses no allusion whatever be made to different readings. In the higher courses let all such subjects be discussed in an appendix, where they may be found and studied by the few who are training themselves as specialists. Their place is not in the notes, where they only confuse the pupil and take his mind off from what he can and ought to understand. The editor, with no words, simply adopts in his text the reading which seems to him correct and the students are more than satisfied to accept it. After all, textual criticism is, in many cases, only a big name for *guessing*, and when it is not this, its underlying reasons are quite beyond the student's depth.

In the last place a word about comparative philology. This young science has been making large and constantly increasing demands upon our attention. Its field is bounded only by the limits of articulate speech, and it offers discoveries and conquests worthy of the greatest minds. Its growing importance has led some to say that it should find a place in all language education. In pursuance of this belief we notice a growing tendency toward comparative philology in notes and in vocabulary. How are we to regard this? I am myself a thorough convert and enthusiastic disciple of comparative philology, and it appears to me the *acme* of language study; but it is just that and nothing lower. That a little knowledge is a dangerous thing, is nowhere more true than here. Because a student knows Grimm's law he is not a philologist, yet he is very apt to think he is; and the last state of that man is worse than the first. To prove this I need only mention the profoundly ignorant and transcendently ridiculous use of Sanskrit and other languages which characterizes the lucubrations of these half-educated polyglots. I say, therefore, let comparative philology fill its proper place, "*in summo monte*," a high and difficult subject, a distant goal after many years of arduous language training, and keep it out of places where the mere smattering of it is apt to work mischief and take the student's time from what is his real occupation. That philology which has for its end the etymology, history and derivation of words, so far as these are confined to the particular language which we are studying, holds and should hold a place in every language course. It is essential to a proper understanding of words, and the acquirement of a vocabulary. It is only *comparative* philology against which I protest.

And now I have done. I have given candid expression to my feelings of dissatisfaction with much that we have, and to my belief, that many of our present editors might well "be given a statue and placed among their ancestors." Many an editor's title page should bear Shakespeare's words, "Note this before the notes, there's not a note of mine that's worth the noting." If your hearts and sympathies are with me, I ask you, an influential band of teachers, to throw your influence in the direction of these needed reforms in the editing of classical texts.

> "Wise men ne'er sit and wail their loss,
> But cheerily seek how to redress their harms."—*Shak.*

NATURAL HISTORY IN SECONDARY SCHOOLS.

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In determining the place of Natural History in the school curriculum two lines of inquiry present themselves. First—To ascertain the value of the study as an auxiliary to mental discipline; from which point of inquiry we ask (*a*) what psychological growth and habits can be secured by the study of Natural History; and (*b*) what method and modes shall be followed to insure the desired end. Second—To inquire concerning the practical value of the subject-matter, or its availability in daily life; from which standpoint we ask (*a*) what subjects shall be selected from the vast domain of nature; and (*b*) what method must be followed to make the subjects clear and impressive.

This paper assumes that the mind has two sources of power, viz.: Knowledge actually possessed, and discipline, a term employed to designate a mysterious and ill-defined something acquired in the process of attaining knowledge; or ability to command knowledge possessed, and to extend inquiry, to make original investigation.

It is not the purpose of this paper to discuss whether knowledge or discipline, or both alike, should be the final cause of the curriculum: there will be no effort to show the value of the subject-matter. The paper aims to suggest a partial outline which is known to be practicable, and is believed to conduce to valuable habits of mind. It is hoped that some who read THE ACADEMY may be induced to give the subject a fair trial. Waiving the argument, it is claimed that the study of Natural History is calculated to insure the following habits of mind, viz.: Accuracy in perception, the use of a technical and exact vocabulary, ability to weigh evidence, the power to classify, hence power of generalization.

The experienced teacher finds his most difficult task in deciding what *not* to teach. The enlarged fields of scientific research multiply facts with such amazing rapidity as to embarrass the teacher in his choice of materials for class-work.

At the risk of being thought pedantic, and of being replete in details, the writer ventures to present the more important characters in two animals as indicating a plan for study. Omitting the "Stereoneura" (solid-nerved animals), and restricting inquiry to the "Coeloneura" (hollow-nerved animals), I begin with the Tunicates;

probably the large, solitary Boltenia has advantages over most forms which are accessible to inland schools. It is desirable for each student to have access to a specimen ; this is impracticable because of expense and time. It is practicable, however, for the teacher to dissect specimens and to demonstrate structures of chief morphological value. These dissections can be shown to the members of the class, then such drawings (diagrammatic always) and descriptions be required as will insure correct knowledge and exactness in language. Attention should be called to the following structural characters: There are two tunics which constitute the microscopic body-walls, the presence of cellulose giving rigidity to the ectal (peripheral) tunic; there are two orifices, the incurrent (near peduncle) has introverted tentacular appendages; the second orifice (near the free end of the body) is excurrent without appendages. The delicate structure of the ental tunic, and the constricting bands of muscle about the orifices are readily distinguished. Prominent within the body-wall is seen the capacious branchium or gill chamber, like a barrel with interlacing staves and hoops; into this chamber the incurrent opening with the inturned oral fringes leads; from the other end of the branchium is seen the alimentary canal or enteron, which makes a single loop and opens by a revolute fringed extremity in the atrium or chamber that communicates directly with the excurrent aperture. The perforate branchium is quite like a leaking cask ; it is enclosed by a membrane which forms a chamber around the branchium and is called the peribranchium, as if the leaking cask were placed within a rubber sac whose mouth opens into the atrial chamber. This arrangement determines the direction of the aerating current, and insures a constant flow of water through the meshes of the branchium, in whose sieve-like walls courses the blood. An alcoholic specimen, of course, cannot show the peculiar reversible circulation ; this may be indicated by diagram. The corrugated lining of the branchium, and the hypobranchial or ventral groove are easily demonstrated. The several regions of the alimentary tract—pharynx (branchium), œsophagus, stomach, intestines, atrium—the green liver lobes, and the yellow ovaries are plainly discernable.

It is not expected that facilities will be sufficient to study the embryology ; this omission can be compensated for by the use of diagram and charts. Without the embryology no satisfactory reason can be assigned for the introduction of these animals into a limited curriculum ; with it, the position of the tunicates in systematic zoölogy, and the relations of their adult structures show them to be one of the most important and instructive forms of life.

Those structures which possess morphological or phylogenetic signification should be made prominent. They are indispensable to a comprehensive view of zoölogy.

To aid in giving due prominence to such characters, I submit the following resume, with suggestions as to its use. It can be placed in the hands of the pupils in printed form, it can be written upon the black-board to be copied, or it can be placed upon the board by the teacher as each structural character is demonstrated before the class—it will accordingly be complete at the close of the recitation. Each plan has its advantages and its disadvantages. The special value to the student consists in the system and the definiteness given to his investigations; the pupil in our secondary schools is not an original investigator, he does not add to the aggregate of truth, he does not procure truth for men. He learns what is new to him, but what is not new to science. He is entitled to all the helps resulting from the experience of the centuries, that by intelligent use of such helps he may the sooner begin to contribute to truth. This outline renders it possible, indeed desirable that a variety of texts be used, hence it is a valuable aid where several authors are used by the class.

RESUME OF ITEMS CONCERNING THE TUNICATES (BOLTENIA).

I. Structural Characters—general form of body—peduncle—body-walls, ectal test, rigidity; ental tunic, extent, muscles longitudinal and concentric—body-chambers; *Branchium* position, size, openings; 1, oral=incurrent, introverted appendages; 2, œsophageal; branchial walls, corrugations, perforate structure, ciliated slits, direction of water-current; branchial rods, their functions as blood-vessels; "languets;" method of development of branchium. *Peribranchium* position, relations with branchium and atrium. *Atrium* position, openings, relations with enteron peribranchium and vent (branchiopore). *Body-cavity*, relations with other chambers and with viscera.

II. Digestive System—*Enteron*, oral aperture and appendages capacious pharynx (branchium)—contracted "tractus"—oesophagus—stomach, position, relations—intestine, attachment, relations, loop, anal opening—cloaca (atrium) structure, relations, development. *Accessory organs*, liver, lobes, their structure, number, position, color—depuratory organs (kidneys?).

III. Circulatory System—heart, persistaltic contraction, reversion of current, quiesence—vascular system—blood cells, origin.

IV. Nervous System—*adult*, ganglion, position; *embryonic* v. Reproduction.

V. Reproduction—hermaphroditic—*genitalia*, number, position, ovum, structure. *Stages of development*, holoblastic segmentation, epiblast, hypoblast—gastrula by invagination—formation of neurenteron by involution of epiblast—closing of blastopore—caudal appendage — axon=notochord — differentiation of branchium and enteron—formation of oral and atrial openings—development of neuron, organs of vision, of hearing, of smell—atrophy of notochord and sense-organs—persistence of ganglion.

VI. Habitat—affinities, annelid, coeloneural.

In a systematic course, perhaps the type best adapted to succeed the Tunicates, is one of the lowest of the fishes, amphioxus lanceolatus, Yarr. Without assuming to contribute to the knowledge of this interesting animal, I suggest the following as the prominent items to be studied.

AMPHIOXUS LANCEOLATUS, YARR.

I. Structural Characters—general outline, body metameres—epidermis—myocommata, inclination of dorsal and ventral ends, position of maximum convexity, relative length of dorsal and ventral portions—intermuscular septa—ventral groove, its extent, relation and function of lateral folds—dorsal ridge, extent, structure, relations with meson, with dorsal fin and with myocommata—ventral ridge, extent, relations with branchiopore and cloaca—fins azygous, extent, relations, dextral deflection of caudal fin at cloaca—notochord, length, position, structure, enveloping sheath, homology—respiration ; *branchial arches*, direction, length, number, asymmetry, structure, framework, relations of median cartilaginous bar of cross bars, special arches cephalic and caudal, *branchial clefts*, number, relations with pharynx and branchium, direction of aerating current —branchium, formation, extent, function—branchiopore—depuratory system.

II. Digestive System—enteron ciliated—mouth, position, form, absence of maxillæ, oral ring, cirrhi their number and function—pharynx, relations with œsophagus and branchial arches ; pharyngeal ring, structure, accessory function—œsophagus—stomach, position, arrangement of cilia—anteverted diverticulum (liver), position, relations, homology—intestine, coats, muscular walls near vent—cloaca, position, exposure, boundaries, valve, vent ental and ectal (pseudo-vent).

III. Circulatory System—systemic heart, rhythmic contractions, incurrent vein, excurrent arteries—branchial hearts, relations with branchial arches, incurrent and excurrent vessels—dorsal tube (aorta), origin, position and relations—ventral tube (vein), length—portal system—blood, discs, course in vessels.

IV. Nervous System—*central*=neuron, relations with axon (notochord), length, form of transection, central canal pigment, dilation of cephalic extremity, dorsiflexion of caudal extremity; *peripheral*, nerves in pairs, absence of ganglia, termination in ectoderm, size at origin, direction from neuron, dorsal and ventral rami, distinctive character of first and second pairs—sensory organs, olfactory, visual.

V. Reproduction—sexes distinct—*genitalia* position, structure, relations with branchium, exclusion of generative elements through branchiopore; *stages of development*, fertilization of ovule, holoblastic segmentation=morula, blastosphere, ciliated larva, gastrula by involution, formation of body-cavity, enteron and blastopore, differentiation of ectoblast, endoblast and mesoblast, elongation of larva, formation of neural plates and neural arch, neur-enteric canal, differentiation of notochord and neuron, closing of neuropore, formation of mouth, branchial slits and vent, ventral folds, secondary folds, branchium, branchiopore.

VI. Habitat—wide distribution—vitality of young—food, etc.

VII. Affinities—*vertebrate* separation of neural and enteric canals by axon—holoblastic segmentation of ovum—branchial arches—position of liver—hollow nerves (cœloneural): *Annelid* vascular system—some features of embryology.

Should the objection be raised that this presentation of Natural History demands special preparation and training on the part of the teacher, the answer is simple. No one places the classical department in charge of a novice who can manage to keep only one day in advance of the class. The teacher of English Literature is supposed to know something of authors besides what is set forth in the elementary text-book. A teacher of History who has never before given thought to his subject is indeed a blind guide and makes sad havoc with the Philosophy of History. What the writer demands for the teacher of Natural History is that the same qualifications be required in him as in the teacher of Language, and that corresponding time be given to Science studies. With such instruction, he will let results establish the claims of Natural History in the curriculum of secondary schools.

COLLEGE PREPARATION AND THE PUBLIC SCHOOLS.

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If our colleges are to grow and become popular, they must depend upon the public schools. The great cry of college men for a generation has been for more and better schools specially adapted to fitting pupils for college. But the public has hearkened to almost every other cry sooner than this. Other schools not half so much called for have been freely supplied; but the country has gone on building up its secondary schools after the manner it deemed best suited to its needs. It is plain that the secondary school of the next generation is to be the Union or High School. There are few independent, well endowed preparatory schools in the State of New York; and the comparative freedom of work of the academy has given way to the rigid order of the graded school. The union schools in the villages and the high schools in the cities have united primary and secondary instruction in one system and prevent waste of time or effort between the two. The problem is to complete the system by making the union between the secondary school and the college equally close.

The number of pupils pursuing the classical course in our college has not increased in proportion to our growth in population, in wealth, and in interest in education. The classical schools of the country cannot supply the colleges with pupils of the grade asked for, and the colleges are beginning to look elsewhere. There has been a great increase in the number of scientific and other courses which diminish the amount of classical preparation required, and most of the gain in college students has been in that direction. This need not be regretted if the standard of college education were not lowered thereby. The classical course, designed primarily for culture, does not meet the wants of many who are moved by the widening influences of modern life to seek a higher education. But the new courses are mostly designed to attract students by offering them admission to college upon easier terms. Instead of completing the work of the secondary school, the college thus comes into direct competition with it.

It is not possible in the public schools to give to Latin and Greek as prominent a place as they have in the regular classical fitting schools. The teachers may be willing, but their constituency will not permit it. Indeed, the fact that the great majority of the pupils in our high schools cannot go to college makes it necessary that the studies should be more adapted to their needs. But if the college course is really to mean anything, we do not desire its standard of work to be lowered ; nor do those of us who believe in the value of classical culture wish to see it thrust aside by being committed to a few special schools where the great majority of pupils will never meet it. In the great widening of modern interests, it is not possible that the classical course should maintain the relative place it once occupied. Yet if it is to have that foremost place to which it is fairly entitled, pupils must be prepared for it in all our union and high schools. The trouble has been that in attempting to raise the standard of work in our colleges the additional requirements for admission have almost all been made in the classics—just the place where public schools were least able to meet them. The colleges tried to have the classical work begin earlier in a child's life, so that the amount of Latin and Greek read could be materially increased. But the tendencies of American education—tendencies too strong to be resisted—were towards more extended and thorough drill in English studies. College preparation has now to be commenced so late that only those pupils who are specially drawn to it undertake it at all. The natural connection which ought to exist between the college and the common school is broken.

Harvard is the most independent of all our colleges, having tributary to it a number of the best fitting schools able and willing to meet all its requirements. But Harvard realizes that conditions have changed, and that if she desires a wider constituency, she must look to the constantly increasing list of public schools. Her new requirements for admission offer extra inducements to public schools to send up their pupils, permitting the substitution of other high school subjects for Latin and Greek to almost any extent. In fact, Harvard is shocking the advocates of classical culture by granting the degree hitherto held sacred to it to those who have practically rejected it by studying little Latin and no Greek at all. Many of the colleges are bidding for students from the public schools by cutting Latin and Greek out of their requirements for admission and putting nothing in their place. Their scientific course seems to be thus called because it fits so unscientifically into our educational system. It draws pupils away from their legitimate high school work before they have half completed it, and before they are mature enough in mind to profit fairly by college methods of instruction. It is useless to argue that the public schools ought to leave certain of their subjects for the college, and attend specially to those which the college will commit to them. The public schools are restrained by the needs of the great majority of their pupils who will never go to college. Either the colleges will have to adapt themselves to what the public schools can do, or they will have to content themselves with a growth less than that made in other departments of education. Upon no principles of sound economy ought they to do work which the public schools are at all events compelled to do.

There are various subjects taught in our high schools of which sufficient knowledge is given for ordinary culture. The college ought to give the pupil credit for this work and arrange its studies upon the supposition that he has completed it. There is no reason why much of the elementary science, which is absolutely required for a degree, should not be taught in the preparatory schools. Those branches of science which specially cultivate the powers of observation can be best studied in the earlier years of a child's school life. Chemistry and physics may need the illustration of the extensive laboratories and apparatus of the college; but botany, geology and physiology must at all events be taught in the secondary schools, and it would be well for the college to commit these branches to it, reserving for itself advanced elective work in them. Secondary schools are compelled to pay some attention to English literature; in no subject has there been of late years a more decided advance than in this. But the colleges give no credit for it, and usually postpone their own study of the subject to the last year of the course, so that the student learns to appreciate the college library at about the time he leaves it. Much elementary work in history is done both in the college and the high school which might with advantage be given to the latter. In the case of the classics, it is well to consider whether there is not need to throw overboard some of the cargo to save the ship. The simplest solution of the question, which would bring the classical course more into harmony with the actual educational work of the country, would be to decrease somewhat the amount of Latin and Greek required for admission to college, as Harvard has already done, and to keep up the standard by giving to the preparatory schools other subjects now taught in college. The classical course ought, of course, to make additional required work in Greek and Latin take the place of the subjects committed to the secondary schools. Many of the better colleges now ask for Latin and Greek work in preparation for college which on any fair adjustment of work belongs to the college course. It is fair to say, however, that this is often not obtained; and colleges have sometimes weakly attempted to increase the thoroughness of classical preparation by asking for greater quantities of matter, instead of raising the quality by holding steadily to their standard in their entrance examinations.

In our own State the study of the classics in our public schools might be considerably stimulated through the Regents' examinations, by increasing the count allowed for them in the academic course. Pupils as well as teachers know that it is decidedly easier to make subjects count in other studies than Latin and Greek; and these are apt to be neglected for others in which they think they can do better. Additional encouragement to begin early the study of Latin would no doubt determine many a pupil to go to college, for, a little further on, he would find all his studies adapted to that end. It would not be unreasonable to give five counts in the Academic course to Cæsar instead of three. I have known a pupil to make five subjects in that course with ease, while an equally bright companion was getting through Cæsar. Even if this availed to give a little advantage to the Latin on the start, it would be no more than is needed considering what may be gained.

But in no way can the cause of classical education, in general, be so much helped as by an advance in the requirements for admission to college in those courses which are not classical. Because a pupil does not wish to study Latin and Greek, there is no reason why the college should do in his case the legitimate work of a secondary school. He needs the same personal oversight, the same careful drill and attention, as a companion who is studying the classics. The study of German or history will not make him more able to walk alone in the comparative freedom of college life than that of Greek or Latin. The college surely ought to require the same maturity of mind for admission to one course as to the other. Not a little of the opposition upon the part of classical graduates to the non-classical courses has come from a feeling that these did not maintain the grade and character of a true college course. The non-classical education would stand much higher if it was built upon the same foundation of substantial preparatory instruction. There is no use in arguing that the scientific course is as good as the classical when it often represents two or three years less of preparatory study. When our colleges maintain an equivalent standard for all courses, the grade of college work will be more uniform and its relation to the secondary school much more satisfactory. It is also safe to say that, if all courses require about the same time to complete them, the classical course will not fail to maintain the place to which it is fairly entitled.

There is no question as to the place which the public school will occupy in our scheme of education. It meets the wants of the time, and will only be changed as the conditions which produced it change. If the college is to be an integral part of our educational system, it must be built upon the foundation of the public school, and carry on without waste the work which that has begun. It would be well for college men to study carefully the limitations under which our high schools work, and what may reasonably be demanded from them, remembering always that the upper stories of a superstructure can be altered much more easily than the foundation.

CHEMISTRY OR PHYSICS FIRST; WHICH?

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There can be no doubt that much of the progress and success of the preparatory student depends upon a proper sequence of the studies in his course. In presenting a series of closely related facts it will make a difference which ones are first considered. The rule which should govern the order of presentation is simple enough in itself and may be stated thus: Those facts should be given first that are simpler and, in a certain sense, preparatory to the more complex ideas to be considered.

In teaching the languages educators are quite uniformly agreed that it is best to begin with Latin and thus pave the way to the mastery of other foreign languages. The reasons for this are well understood and need no discussion here; suffice it to say that the same reasons—from a logical educational point of view—that would lead to rejecting Greek as the first foreign language to be studied, would lead to the rejection of certain branches of Natural Science as initiatory studies in scientific instruction.

It is the intention of the writer to limit the discussion of the order of presenting the sciences to the question of precedence between Chemistry and Physics; and it might be well to state distinctly at the outset that there is no wish or intention on the writer's part to discriminate either for or against the intrinsic worth of either branch, but simply discuss the question:—Which should be studied first?

It has been my experience with preparatory students, and as far as I can learn it has been the experience of other teachers, that Physics is the most difficult study in the high school course. Indeed, so difficult is it supposed to be that the traditions of its terrors have been faithfully handed down to the lower classes in our secondary schools, and even the dread of it has been carried to college, where, within the memory of the present generation it has been the custom to give expression to the relief felt upon its completion by burning the study in effigy and by holding other orgies which need not be related here.

Now, the work done in Physics by our secondary schools does not call for an excessively high grade of talent to complete it; and still, our pupils often complain of it bitterly and not unfrequently fail to pass it.

Actuated by a desire to discover the reasons for this state of affairs and, if possible, to find a remedy for it, the writer undertook, not long since, a series of investigations. In this work he had the earnest coöperation of Superintendent Putnam, who even went so far as to place his own son among the number of students selected to be experimented upon. We have solved the problem, so far as our own school is concerned, and the details of the work done and the conclusions reached may at least prove interesting.

Before going farther, it may be well to say that in our school the study of Chemistry and of Physics each extends over a whole school year, and that every pupil is required to make all the experiments in the texts on these subjects.

After much patient investigation, and by the way, this investigation was by no means easy to prosecute, it was learned that the regular-course students were laboring under several embarrassments. In the first place they were *afraid* of the study. The accounts given by their predecessors were such that their fear was similar to that of Cæsar's army when his soldiers crawled into their tents and wept and made their wills through fear of the unknown Ariovistus and his Germans of fabled gigantic stature. Never was the maxim, "He is already half defeated who before the battle is only thinking of a safe place for retreat," better exemplified. Some students were almost sure they could not do the work, even before they had tried; others were anxious to go through but had so little self-reliance that they often became demoralized to such an extent that they were ready to believe that the arithmetic, algebra and geometry employed in physics were distinct varieties of these branches invented solely to add to the hardships of the study.

In the second place, they were not accustomed to inductive reasoning. It is safe to say that their various and unique blunders in using inductive methods tended in no way to increase their own self-respect or their love for the study.

In the third place, they lacked skill in manipulation. The great and common complaint was that the experiments "would not work." It is true that many of these complaints arose from the unavoidable experimental errors that are constantly attendant upon physical experimentation, but this fact nevertheless disheartened the pupils and created a dislike for the study.

Such, in brief, were some of the facts. What was to be done? Evidently the studies were not properly arranged. Physics was not well adapted to serve as an introduction to inductive and experimental research. Would not Chemistry better answer the purpose? Would not the second and third objections be less forcible when applied to Chemistry? Would not the year's work in Chemistry prepare the pupil for the more difficult experimentation in Physics? And would not some good, honest, reassuring talks by the teacher forever banish from the class and from the school the silly fears and legends of the terrors of Physics, especially when the student was fortified by one year of good, solid work in Chemistry?

Such questions as the foregoing were among the many to be answered.

At that time Physics was a third year study while Chemistry was assigned to the fourth year.

The crucial test might have been made by re-arranging the courses of study so that Chemistry would have come in the third year; but since our school is somewhat conservative, and as the necessary changes would have made many conflicts, it was thought best to select a number of students from the third year to take Chemistry in that year with the regular class; these pupils were then to take Physics with the regular class beginning a year later. It is evident that this arrangement would give better opportunities to make comparative observation than any re-arrangement of the studies.

In order to make the conditions similar to those met with in actual practice, pupils of excellent, fair and medium ability were selected; in fact, one or two dullards were purposely taken. At the close of the year it was evident that the "chosen few" had done as good work as the regular class pupils, although the latter had had Physics; hence conclusion number one: The training in Physics had not materially lightened the work in Chemistry.

The ensuing year the selected pupils were working in Physics with the regular class. During the year their superior preparation for the work was evident from the first, and at the close their records were so much better than those of the regular pupils that there were sufficient reasons to conclude: The training in Chemistry had materially lightened the hardships of Physics. Moreover, these few students were the first to emancipate themselves from the current belief that Physics is something dreadful. It is almost superfluous to add that the courses were re-arranged. These two science studies and those nearly related, now come as follows; Third year, Chemistry, Botany, Complete Algebra two terms, Geometry one term. Fourth year, Physics, Geometry two terms, Complete Algebra one term.

A reference to my present class in Physics may not be out of place. This class is one that I have thought of in relation to Physics for the last three years with anything but cheerful anticipations; in fact, it does me good to make what reparation is in my power by saying that they are doing their work with less assistance from me and with less fault-finding than any of their predecessors; and although one would not have expected it of them their work will rank with the best. This farther tends to convince me that Chemistry should come before Physics.

It also seems to me that there are some good reasons from a theoretical point of view that would call for studying Chemistry first. For example, the fundamental concepts in elementary Chemistry are neither so abstract nor are they so far-reaching and intimately blended in their extension; the conclusions follow more directly from the experimentation; the experimental errors are smaller and not so discouraging to the pupil; the aid required from allied branches is less extended; the experimentation may be better graded and adapted to the ability of the pupil; the subject matter is not so difficult and, to some branches of Physics, Chemistry is certainly a preparatory study, just as Algebra and Geometry are.

But, some may object. Why is it then that Physics is placed first in so many, many schools; and why is it studied in so many schools where Chemistry is not taught at all? The reasons for this condition of things may be as follows: Physics has longer been a candidate for a place in our secondary curriculums; it may have obtained its foothold in times past more through the opportunities which it offered for an extension of mathematical reasoning than for its drill in experimentation, so that the conditions under which it is now studied have entirely changed.

That the study of Physics was first developed and utilized for educational purposes has nothing to do with the question. Nor has the fact that more teachers understand Physics any signification in this discussion. These facts may be accounted for by ascribing their origin to that well known peculiarity of the human mind which usually causes it to seek out and to apprehend the more remote and complex principles first, while the simpler ones are left in abeyance;

just as the inventive faculties produce the first machine designed to fulfill any specific function, too complicated and too open to objections of various kinds, so may we have commenced our science studies by beginning with the more complex.

SHOULD THE STUDY OF PHYSICS PRECEDE THAT OF CHEMISTRY?

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A master mechanic had been ordered to move his shop to a place where he would be nearer the new work to be taken up. The men in his employ on their arrival, with their "outfits," seemed to be in great confusion of mind as to how to begin their duties, but engaged themselves first in setting things to rights. They soon found, however, that, in some respects, this was no easy matter. The foreman, after a time, seeing their perplexity said, "never mind trying to find a place for everything now, but get to your work and the tools will find their own places." The men did as ordered and after a few days each instrument had been put in a convenient place.

It would scarcely be claimed that the previous training of the men had nothing to do with this, or that it had not all to do with it. Like running the fingers over the key-board of a piano to replace, in the memory, a forgotten measure; or thinking over the letters of the alphabet to recall a name, it is by setting things in motion that a suggestive state is most likely to be brought about.

When the work is upon us and something must be done, we can lose no time in prospective speculation and must begin, whether ready or not. There comes a time, however, when there is more leisure and a general inspection of the arrangement can be made, to see whether or not, for want of due deliberation, something has been wrongly or inconveniently placed.

Such, generally and in the main, will not be found to be the case. Neither has the arrangement been a deduction from our previous experiences. But, as in all the higher contemplations of the mind which result in grand conceptions, we throw in the bulk of our knowledge and there is induced an arrangement which can not be so readily reached in any other way; so often in our more ordinary work when most freed from the dictates of close reasoning, and at a time when the question of "why do you do that" would utterly confuse our senses, we may be forming a plan that will forever stand the test of such reasoning.

Admitting that there are widespread, misleading causes, and that there is a great tendency to copy from each other for the sake of uniformity or want of a better plan; these reasons are scarcely sufficient to account for the very great degree of that uniformity which is seen in the order in which the study of physics and chemistry is pursued in schools generally. The order seems rather, to some extent, the natural outgrowth of necessity and is practical. This might partially explain the existing state of things.

There are two other factors to be considered. They are the theory of such a procedure, and the resulting experience of both teacher and pupil.

Bain says, "that division of the science of education which is at present without a name"—but which he calls the analytic or logical branch of the theory of education—"is an inquiry into the proper or natural order of the different subjects, grounded on their relative simplicity or complexity, and their mutual dependence. It is necessary to success in education that a subject should not be presented to a pupil until all the preparatory subjects have been mastered. This is obvious in certain cases; but in many cases the proper order is obscured by circumstances, and is an affair of very delicate consideration."

It does not seem that the secondary schools of the State of New York are so differently circumstanced as to prevent a uniformity in this matter.

As to methods of attaining knowledge it is impossible to employ either the deductive or inductive reasoning exclusively, in all our work, although, as the authority above quoted says, "on every great question there should be a convergence of both lights * * * the deductions are to be obtained apart in their own way with all attainable precision, the inductions are the maxims of practice—purified, in the first instance, by wide comparison and by the requisite precautions."

In order to argue this question of precedence it is necessary to choose first an acceptable basis, and as for that the line might be drawn at mathematics, which as a school text-book study should be taken up before that of physics. Now it matters not to what extent this subject is studied, the result is an encroachment on the domain of physics before that of chemistry. Nor do we reach the purely inductive, experimental part, which is so characteristic of chemistry, until we have covered a large portion of the ground occupied by physics. The relation of physics to mathematics is much closer than that of chemistry. Then why omit this part of applied mathematics for the purpose of taking up chemistry first, which is so purely based upon inductive reasoning?

It is true that there are logical reasons why a pupil should study chemistry before physics, as, for instance, in physics we have to deal with most of the elements in their free state and with their compounds. It might be held that we should first understand fully the nature of these and their relations to each other in any scientific method of procedure, working thus from the more simple to the more complex; and that these elements, even for their physical properties and history, are more fully considered in the works on chemistry. Instances of this are very evident in the consideration of what are called the chemico-physical forms of energy, but the name suggests well the point of transition, in the middle of physics. Then how can we leave this out and begin the study of chemistry proper without a knowledge of light, heat and electricity?

Pupils like to do those things that they can do well. They like to deal with things and forms of energy that they know something about. And as familiar phenomena are brought up and explained, their interest, which it is so essential to secure, is stimulated and increased; the difficulty of securing this diminishes as they grow older and their mental horizon extended.

Probably every instructor in this subject is familiar with the expression often heard in the laboratory, when applied to by some pupil in trouble, and for whom he has obtained a reaction—"I did the very same thing and it will not come for me at all." The difficulties are obvious enough in many ways even with the oldest pupils in the school, while with the younger they are of course very much increased even if their parents do not themselves object to have their children try such experiments, when they do not object to the making electrical toys out of straws or rolling paper hoops with rubber combs, even in the parlors at home. If the pupils are thorougly interested as they should be in their school work they must do something of this kind.

The question was asked a class in organic chemistry a few days ago, if they thought they could have obtained as good a knowledge of both, if the order had been reversed, and they had studied chemistry before physics. Their verdict was that they could not.

It seems therefore that the subjects of physics and chemistry have found their natural places, and from experience and logical reasoning it does not appear that there is anything to be gained, in the end, by changing the present order in which they are generally pursued. And as Bain says—"the order is what would generally be allowed."

INTERCHANGE.

Communications upon any inside-school topic are solicited, and may be addressed to G. R. Cutting, Auburn, N. Y. *The subject for May will be:*

The legitimate duties of a Principal; or, how can a principal best divide his time between general supervision, class-room visitation, office-work, and class instruction.

SCIENCE TEACHING IN SECONDARY SCHOOLS.

SOME QUERIES ANSWERED.

(1) *Which branches of science are taught in the secondary schools?*

The relative numbers of pupils pursuing the various branches of science in the secondary schools of New York are fairly indicated by the following extracts from the latest reports from the office of the Regents of the University of the State of New York:

Average attendance of strictly academic pupils in secondary schools during year 1884–5,	9863
Ditto, probationary academic pupils,	9347

The science branches, arranged, in the order of the number of pupils pursuing each, with the pupils claiming and receiving Regents' pass cards in science subjects for the same time were:

	Pass-cards claimed.	*Pass-cards allowed.*
1. *Physiology*	4776	4532
2. *Physical Geography*	2989	2843
3. *Astronomy*	836	781
4. *Geology*	841	741
5. *Botany*	869	707
6. *Physics*	777	571
7. *Chemistry.*	536	362
8. *Zoölogy.*	306	236

meanwhile, 6985 pupils were pursuing classical studies and 2418 were preparing for college.

The number of pupils claiming pass-cards in a subject may fairly be quoted as the approximate number of students pursuing that subject in these 262 secondary schools. We think that four out of five teachers will be surprised by the above table of official statistics, not that Physiology and Physical Geography lead in the number of pupils ; but that Physics and Chemistry are almost at the bottom of the list ; for the word " science " to the average teacher most commonly suggests Physics and Chemistry. The two branches that include the larger ratio of pupils are the two science subjects that the Regents of the University require for an academic diploma. Astronomy, Geology, and Botany grade above Physics and Chemistry, doubtless because it is generally understood that it is easier to secure pass-cards in the former; and in elective studies, academic pupils will, as a rule, chose those braches where a "pass-card" can be most easily secured. The election of studies for pupils is always supposed to be under the direction of the principal ; yet probably those principals are very rare who theoretically would not think that Physics and Chemistry ought to be at the top of the list, whether considered in the light of practical knowledge of teaching the scientific methods or of their disciplinary value. It is a very practical question for the Regents as well as the educators in the secondary schools of New York to consider, whether there is not a need of some official action looking to the promotion of a more general study of Physics and Chemistry in the secondary schools of the state. Some practical suggestions on this point are reserved for a future INTERCHANGE.

(2) *In science-teaching, do you or your teachers get results equally satisfactory with those obtained in mathematics, classics, etc.?*

PRINCIPAL P. K. PATTISON, *Westfield Academy and Union School.*

Yes—Let us quit bowing down to an idol, that has been overthrown. Science-teaching has come to stay ; and I think it our duty to welcome it and make the most of it.

PRINCIPAL A. G. SLOCUM, *Corning Free Academy.*

As good results considering the limited time given to each one branch of science.

PRINCIPAL B. W. SHERWOOD, *Rome Free Academy.*

Judged simply by the Regents' examinations, we obtain as good results in science-teaching as in other branches ; but we all know that examination papers tell by no means the whole story. It is possible to cram so as to pass an examination without having imbibed much of the real scientific spirit. We cannot accept the pupil's estimate, because those who really have profited the most are the ones to appreciate the fact that they know only a very small part of the subject.

Taking into account the time at the disposal of teachers and scholars, we think, with us, the work is well done.

PRINCIPAL D. O. BARTO, *Ithaca High School.*

The causes why we get less satisfactory results in science-teaching are plain :

(*a.*) There is a more thorough preparation in the lower grades for mathematics, and more continuity in the work. There is hardly a term from the time a pupil enters school till he leaves, that he is not studying mathematics. In the classics, the work is much less hurried, and the students get seasoned to it before the three or four years of work is done. In our science studies we give not to exceed twenty weeks, in some of them only fourteen, and they can barely get a smattering at best. (*b.*) A knowledge, fairly thorough of mathematics and languages, is required for entering college, but not in the sciences, hence less interest is usually felt in the work.

PRINCIPAL G. F. SAWYER, *Carthage Union School.*

I have better results in teaching science than in any thing else, notwithstanding the fact that I get more pupils through the Regents' examinations in the classics or in geometry than in physics or chemistry. I account for this from the fact that in the classics we spend six or ten times as much time as in the others ; and, as far as every thing of a grammatical nature is concerned, it is of necessity a constant repetition ; and in geometry the successive propositions have such direct dependence on those going before, that a constant review is a necessity. While in physics, for example, the time is so short that can be devoted to the study, and the sub-divisions of the subject are so many and so entirely independent of each other, that anything like a frequent review is impossible. And yet, I think I can see my pupils growing more rapidly in their ability to *think* when studying some of the branches of science, than in any other classes. It is in this fact especially, rather than in the more rapid and exact mastering of the facts of the subject, that my satisfaction in results rests.

(3) *What is most needed to improve the quality of science-teaching in the secondary schools?*

PRINCIPAL GARDNER FULLER, *Batavia Union School.*

Teachers—fully equipped and thoroughly trained in science knowledge and laboratory practice.

PRINCIPAL F. J. CHENEY, *Kingston Free Academy.*

In my judgment the great needs of secondary schools to improve the quality of science teaching are: (*a*.) Thoroughly equipped and enthusiastic teachers, whose success will not be prevented by the want of apparatus, or the lack of interest in the subject pervading the community in which they are working, who will *teach science*, and not be content to skim the surface. (*b*) Laboratories supplied with a reasonable amount of apparatus, where pupils may do *individual* work. The latter, however, are not so essential as the former, as the personality of the teacher must determine the success of the teaching.

PRINCIPAL JAS. WINNE, *Poughkeepsie High School.*

The thing most needed to improve the quality of science-teaching in the secondary schools is *experimental knowledge.* Such knowledge will, in most cases, insure to its possessor the co-operation of employer in furnishing the apparatus necessary to stimulate enthusiasm in the chosen subject. Lady teachers, especially, who familiarize themselves with the use of apparatus will find their success in teaching science very much enhanced, and their services in demand.

The number of science subjects attempted in any school should be determined by the relation between the teaching force, including number of teachers and their experience in teaching the subjects, the mental development and number of pupils, time the class can spend in school, and the purpose of study. So far as a science subject is taught, it should be taught thoroughly, but not necessarily in detail.

PRINCIPAL ORLO B. RHODES, *Adams Collegiate Institute.*

There are too many *subjects* in all courses of study. We are crowding the courses too much in every direction, and are cultivating a love of formal results at the expense of a love of knowledge and a generous culture.

PRINCIPAL A. G. SLOCUM, *Corning Free Academy.*

More interest aroused in science-subjects in schools where teachers are trained.

PRINCIPAL D. O. BARTO, *Ithaca High School.*

More time to devote to each science; better preparation in the lower grades which can be given in weekly or daily talks and lessons by the teachers.

PRINCIPAL ARTHUR M. WRIGHT, *Waterville Union School.*

(*a.*) That principals should recognize the value of science-teaching as co-equal with that of mathematics and classics; and if not themselves competent to give good instruction in this department, they should insist more earnestly that a competent teacher be employed.

(*b.*) That schools stop reporting apparatus worth $500 or $600 and "suitable rooms and cases for the same," when the apparatus of the school is worth less than $50 or possibly valueless; while their rooms for experimentation are entirely inadequate.

(*c.*) That the principals no longer quietly acquiesce in these false reports; but, assured that their Boards of Education are fully informed as to the requirements of the Regents, see to it that these reports state the unvarnished truth.

(*d.*) That this fact also be recognized, that good apparatus is just as essential to good work in science-teaching, as good tools to good work by the master workman.

PRINCIPAL B. W. SHERWOOD, *Rome Free Academy.*

Most institutions have apparatus enough: so that slight additions from year to year will give them all they actually need. More often there is a lack of earnest and intelligent teachers. Supply this deficiency and the class will usually have experiments enough.

What we most need is more time devoted to each branch of science taken up. This can be obtained by diminishing the number. I would limit science-subjects to physiology, physics, chemistry, physical geography, and in some cases, astronomy. Physiology and hygiene could then be studied twenty weeks and each of the others one year. The elements of physics and chemistry could then be thoroughly mastered. The scope of physical geography could be so enlarged as to give pupils the essential elements of botany and geology. With this course in natural science faithfully carried out, those who enter the scientific courses at the university or technical schools, would have a solid foundation upon which to build. Those entering at once the active pursuits of life would be better informed than are those who now have a smattering of many sciences, yet who in reality know but little of any. All would form more correct habits of study.

PRINCIPAL G. F. SAWYER, *Carthage Union School.*

In the first place, there is a general lack of appreciation on the part of teachers, of the real educational value of the sciences. The facts of science are taught too much *as* facts simply, while the logic and sequence of facts, so rigid and exact, receive far too little attention. If our teachers would ask the *reasons* for things more, and compel their pupils to follow the step-by-step process of reasoning, and watch carefully that a single step may never be omitted, we should have in our pupils much better thinkers.

Cabinets to illustrate the sciences are of course of prime importance, and, as they are usually secured, are expensive; hence *seem* to be out of the reach of many of our secondary schools. And right here is a call for another qualification of a teacher which is very generally lacking,—the ability to make the most of things he has, and especially the ability to get the pupils themselves to provide the materials needed, which, in so many cases, would be found and brought in abundance when fifty watchful eyes are looking for them, and fifty ready hands are eager to gather or *make* them, and are waiting only for a suggestion and a little proper direction from the teacher. There is, as we all know, a vast amount of mental and physical energy running to waste among boys and girls in school, which ought to be utilized, and might be very largely under proper direction. But the tact and ability thus to husband one's resources, to make use of the powers at hand and ready for use, is a rare gift, in any large measure at least, but a gift that it is the imperative duty of the teacher everywhere to cultivate. Indeed, the very object of schools is to teach pupils successfully to do things. The habit of *collecting*, also, will of course cultivate a habit of observation so lamentably wanting everywhere.

IV.—Are there too many or too few subjects usually attempted in the Regents' Courses?

PRINCIPAL F. J. CHENEY, *Kingston Academy.*

I do not think that too many science subjects are usually attempted in the Regents' courses. A large number should be offered so that pupils, with varying tastes and capabilities, may have liberty of choice.

PRINCIPAL D. O. BARTO, *Ithaca High School.*

I think too many in most schools. The Fourteen Weeks' Series of Science books were a curse to many schools.

The above represent two classes of answers received.

V.—How would you limit or enlarge the number or scope of the science subjects?

PRINCIPAL J. G. WIGHT, *Cooperstown Union School.*

I would not lessen the number of science subjects to be taught, but have at least two of these subjects, physics and botany, studied long enough to produce mental discipline. A more superficial study of the remaining ones would then suffice. It would be well to remove elementary physics from the Regents' list, and make advanced physics, as well as botany, essential for the academic diploma, giving each the graduating value of two subjects. Either botany or geology should be one of these selected essentials, with the view of realizing the *sine qua non* of scientific teaching, field-work. It is to be borne in mind, in connection with this matter, that but few schools can afford the requisite apparatus for the thorough study of all the scientific subjects of the academic curriculum. Again, the expenditure of funds for a library, which benefits all, subserves the interests of the school and the public better than the purchasing of such varied and costly apparatus to be used by a few.

PRINCIPAL A. G. BENEDICT, *Houghton Seminary.*

I would not reduce the number of subjects in science, but leave an option for any two, (or three at most) to be studied more thoroughly Increase the time that must be expended on each subject. Perhaps include the literature of these two subjects. A scientific method necessary for original investigation in other fields can be acquired and developed from the patient and persistent study of these chosen branches. Thus greater power of observation can be attained than can be supposed in the skimming and cramming possible and permitted in many cases to obtain pass cards and diplomas.

PRINCIPAL GEORGE F. SAWYER, *Carthage Union School.*

I would add Microscopy. Of course, it would be impracticable to extend this to the examination of many of the lowest forms of objects; but the elements of the science and art could be readily studied to advantage in any school in these days, when respectable microscopes may be obtained at low prices. The processes of mounting a great variety of objects are so simple and inexpensive that no person should be regarded as well educated who has not learned some of these. We are fast coming to recognize the microscope as indispensable in our civilization—a factor of our education becoming year by year more important. I should not be reluctant to elevate electricity to the dignity of a separate subject.

EX-PRINCIPAL NOAH T. CLARKE, *Canandaigua.*

I would not abridge the number if time could be secured.

It seems to me that the Regents' course is none too comprehensive, but the time to do any real good work is not more than half enough. Science teaching will prove a mere mockery if only a single term can be given to such studies as physics, chemistry, astronomy, geology, etc., while such as physiology, physical geography and the like can be pursued profitably in a single term. I feel more and more that the days of good teaching in mathematics and the natural sciences are passing rapidly away, in the hurry and crowding of topics in these times; and yet I know that good teachers will produce good results, even under great hamperings.

DR. JOWETT'S ADDRESS.

At a meeting of the National Society of the French Professors in England in the Hall of Balliol College, at Oxford, January 13, Dr. Jowett, the Master of Balliol, gave an address. This address is particularly significant because Dr. Jowett is known wherever the English language is spoken, as one of the most eminent classical scholars of this century. The address is given in full in the February number of the London *Journal of Education.* We quote a portion of it, leaving it to our readers to make such comment as they think fit, though we fully endorse the following from an editorial note in the same journal :

"We are, however, inclined to think that Dr. Jowett rates too highly a knowledge of colloquial French, and consequently insists too strongly on the necessity of native teachers. For two classes colloquial French is a valuable acquirement, for the upper ten thousand, as an *art d'agrément* and a passport to continental society, and for the industrial and commercial class, as a *Brodwissenschaft;* but for the vast majority of public school boys, who lie between these two extremes, it is a luxury, and a rather useless luxury. How often, in after life, is the average lawyer's, doctor's, or clergyman's son likely to have a chance of conversing with educated Frenchmen ? In their case, we have to look solely to its educative value, and this is confessedly small. A boy who has learnt to appreciate Molière, or to translate into good English a *causerie* of Ste. Beuve, has got part at least of a liberal education ; the polyglot Russian may be, and often is, an outer barbarian. Lastly, at the risk of incurring the charge of Gallophobia or Anglomania, we are bound as Froebelians and Educationists, to express our mistrust of the French *bonne*."

The following is from the closing part of Dr. Jowett's address:

"Under the present system, any idea of enjoyment in learning Latin is almost hopeless, and even in the case of a boy with linguistic aptitude Latin grammar, as at present taught, is enough to turn the scale and make him hate his lessons. The universities have hitherto given little encouragement to an accurate study of French and German; the need or use of them is not strongly felt, or is felt only by a few persons. Great enthusiasm and perseverance are required if any considerable change is to be made in the methods of teaching either ancient or modern languages. Education is conservative, and hangs to the past; a teacher is loth to adopt any other methods than those by which he was taught himself. Such changes are undoubtedly needed, though I myself would be unwilling to diminish to any great extent the classical curriculum, or to substitute modern languages for ancient. The true order of study is, first the modern, then the ancient languages; the one should lead up to the other. There will come a time when habit and use will have to be strengthened by grammar. The English universities are still in a position which enables them to a great extent to guide the education of the country. If modern languages are not insisted on at the Universities, they will be neglected at schools, and, if they are neglected at schools, they will be undervalued at home. A reasonable knowledge of some modern language may fairly be demanded of every university student before he takes his degree. Such a test, however, should be imposed, not for admission to the university, but for a degree. Ignorance of French, like ignorance of Latin, should be regarded as involving a sort of discredit. In every Honor examination some opportunity may be afforded of showing that French and German books have been read by the candidate, or that he has made a deeper study of some portion of a modern language or literature. Again, the long vacation may be profitably and inexpensively utilized in learning on the spot the languages of foreign countries. They should be taught by the natives. No one but a native can impart the accent, the intonation, the true living voice of a language. But any study of modern languages which divorces them from ancient languages, or from literature, will be a mistaken one. We must study them mainly, not for their immediate use, but for the improvement of the mind. Most of all must we hold fast to Greece, which seems to be the original source and inspiration of our modern literature and civilization—the little leaven which leavens the whole lump. Yet the age for beginning the Classics may well be postponed. Latin need not be begun before the age of eleven or twelve, and Greek not before the age of thirteen or fourteen. Classical studies will not suffer, but gain, by the postponement. The method of studying will be more intelligent; more attention will be paid to the meaning, and less to the form. How modern languages are to be taught in earlier years is a harder question to answer. With the rich, who can afford for their children *bonnes*, or foreign governesses, there is no difficulty. For the middle and lower classes, some other means must be devised. I would suggest the union of schools in a particular district for this special subject, or the combination of families for classes. French is already recognized in elementary schools as an optional subject in the seventh standard; and by some such union the children of artisans, traders, and clerks, may acquire a real familiarity with French. Not only from a commercial, but from a political point of view, such knowledge is of the highest importance. These views may seem visionary to some, but to me they appear only the doctrines of common sense—that they should follow the order of Nature; that the study of modern languages, which are learned mostly by the ear, should precede and also accompany the study of ancient languages, which are learned chiefly out of books. If taught in youth they are not forgotten, or laid aside, in later life."

WHAT THE SECONDARY SCHOOLS ASK OF THE COLLEGES.

We publish this month a timely and suggestive article by Principal Keyser, of Middleburgh. Practically, the colleges offer the secondary schools little or no support or incentive outside the classical department. There lies before us at the present writing, a college catalogue—one of many—which contains the following requirements for admission:

"CLASSICAL COURSE."

"I. Arithmetic, Grammar, Geography, Algebra to quadratic equations, plane Geometry, elementary Physics.

"II. Latin Grammar, Cæsar's Commentaries, four books, Cicero, six orations, Vergil, six books of the Æneid and the Eclogues, Latin Prose Composition, Roman History, Ancient Geography.

"III. Greek Grammar, four books of the Anabasis, three books of the Iliad, Greek Prose Composition, Ancient Geography and History.

"Candidates for the Latin scientific course must be examined in the studies under I. and II. Candidates for the scientific course will be examined in those under I."

These are the requirements in the first catalogue we took up. They are in no way exceptional. They are practically duplicated in most of the three hundred college catalogues which have been sent us during the past year. A little examination of these requirements, will reveal the condition of which secondary teachers complain, and, since college authorities have repeatedly asked for an expression of what secondary teachers want, we propose to take our life in our hand and show first of all what we object to in these requirements, and secondly, what, for one, we would like to see put in their place. We shall at least offer something tangible for criticism.

Of the subjects named under I., four, arithmetic, grammar, geography and United States history, may fairly be called preliminary studies. There remain, then, only algebra, geometry and physics as properly coming into the work of secondary schools. In our own school we devote these three studies eleven hours a week for one year, and we have never had a candidate rejected in these studies. We take it for granted, therefore, that eleven hours a week for one year will give the ordinary pupil sufficient preparation to enter satisfactorily on the scientific course at college.

To the studies under group II. we have found it necessary to devote five hours a week for two years, and two hours a week for one year, or, what is the same thing, twenty hours a week for one year.

To the third group we devote five hours a week for nearly two and a half years, or, in round numbers, twelve hours for one year.

We have, then, as representing the preparation for the scientific course, eleven hours; for the Latin scientific, thirty-one hours, and for the classical, forty-three hours. When it is remembered, however, that the studies under group I. come at the very beginning of our course, when the students are least mature, and some of those in the other groups toward the end of the course, when the scholars, by their greater age and by the habits of study already acquired, are able to accomplish more in the same time, we feel that we do not exaggerate in saying that the preparation for the scientific course implies less than one-fourth the labor necessary to prepare for the classical course, and scarcely more than one-third that required for the Latin scientific. It follows, then, that the student can enter a scientific course two years younger than the same pupil could enter the classical course, and, of course, he will be just that much less mature and less prepared to do satisfactory college work.

We are not now claiming that the classical course should be the only one offered in colleges, or that the classics afford the only suitable discipline for preparatory schools. We simply ask that the scientific course in college should not be brought into competition with the proper work of secondary schools, and that the requirements of the scientific course should be such as to require the same age and the same mental maturity on the part of students that is required in the classical course. There is certainly enough in science to furnish an ample field for both the preparatory school and the college. If the colleges can be content to allow the secondary schools to do the work for which they are fairly equipped, and which they are ready to do, there will be no difficulty in bringing the two grades of work into harmony, and the colleges will then give to the secondary schools the support of which they stand in need, and which we think they fairly have a right to ask.

To be even more explicit, we will suggest what further requirements might be added to those in the Latin scientific and scientific courses without burdening the lower schools, or asking them to do college work. A great gain would also accrue to the colleges in that they would be relieved from doing work which they can do no better than the secondary schools, and which the secondary schools at present are forced to do to meet the requirements of the communities in which they exist.

Admitting that the classical course is well adapted to secure to preparatory students a fairly complete preliminary discipline, we suggest that for students who are not required to be examined in Greek, at least one year of French or German, one year of physics or of chemistry, and one year of rhetoric and literature be required. For students who take the scientific course without either Latin or Greek, a reading knowledge of both French and German should be required, and in addition to this there should be one year of physics and chemistry, one year of rhetoric, one year of literature and one year of history.

In presenting such a course of requirements nothing is demanded which any secondary school should not be amply able to give, and nothing is required which any scientific student should be allowed to graduate without having. The colleges then could be fairly certain of having students in all their courses mature enough to take up profitably proper college work. No additional burden would be laid upon the secondary schools, for public opinion in every section now requires that all these subjects be taught in secondary schools, and if the college entrance examinations were properly made, they would, in a very brief space of time, make sure that these subjects were satisfactorily taught.

It is no answer to say that science teaching is poorly done in secondary schools, or that the instruction in modern languages is not what it should be. If it is true that this work is not well done at present in the preparatory schools, the colleges have it in their power to see that from this time forth the work shall be better done. Secondary teachers will not complain at the raising of the standard of requirements in any of the branches now taught in their schools. What they do complain of is that the colleges offer them no support or incentive in this work, either requiring no examinations at all in these subjects or examinations that are in themselves a mere farce.

At the present time there is on the part of many teachers an eager and almost bitter advocacy of the classical course and the classics. Among the advocates of this course are found to-day the majority of the best teachers in our secondary schools. A wide observation, however, and an extensive correspondence with these teachers has convinced us that the real strength of this advocacy of the classics lies in the fact that teachers feel that, as a rule, there is no requirement in higher education outside the classics. If this feeling could be gotten rid of, if the teachers could know that as broad and liberal a culture was demanded in the other courses as in the classical, there would be much less insistence upon the classics.

AN EXPERIMENT THAT FAILED.

Mr. Harrington, superintendent of schools at New Bedford, Mass., in his report for 1886, returns to conservative views with regard to the basis of admission to its high school. The experience of New Bedford in this matter has been specially instructive. Promotion in mass from grade to grade of the public school system, including the step from grammar school to high school, was carried into effect in that city some years ago. The time has now come for a very full confession of failure on the part of committee and superintendent to maintain scholarship and discipline on such a basis of admission. Hereafter the pupil's record made in the grammar school will be taken into account in determining his right to enter the high school. A principle of exclusion is established. We believe that this is as it should be. No parent can claim for his child a right to any place in the school system where that child is a hindrance to others or is deriving no profit to himself. A silly sentimentality has urged the claims of indolent, incompetent and immoral pupils to sit beside the earnest and the faithful, on the ground that all are alike citizens and taxes fall equally upon the just and the unjust. The American bias is always in this direction. But the insight of thoughtful educators should oppose this tendency for the sake of the schools and hence for the greatest good of the greatest number.

The fact is, a few malicious, unfaithful pupils in a school, feeling themselves beyond the reach of law and utterly hardened to counsel and kind admonition, are quite capable of swamping the school and are sure to sow the seeds of moral and intellectual badness. A good school implies a good body of pupils quite as much as it does a good corps of teachers and good material support. No teachers or trustees, with any amount of money at their disposal, can successfully resist a considerable number of evil-minded youth, disloyal to the aims of the school. The time comes when long-suffering must cease, and the obnoxious elements must be eliminated. Every famous school practices expulsion. The great academies that have their colossal reputations to maintain for scholarship and character practice it to an extent not usually known or surmised outside their own precincts.

But public schools should adopt all possible precautions against the admission of noxious members by such tests as tradition, a sound philosophy and public opinion seem to prescribe.

Our readers will be interested to see the scheme adopted in New Bedford for regulating admission to the high school:—

> I. A record in per cents shall be kept by the principal of each grammar school, in a book provided for the purpose, of the daily work of the pupils of the Fifth grade throughout the year, the markings not to be made at each recitation, but in the form of a weekly estimate, founded on impressions and judgment.
>
> II. The principal of each grammar school, when called on, shall submit to the High School Committee a list of his first class, divided into three sections; *the first*, embracing the names of those whom he considers unqualifiedly fit to be advanced into the High School; *the second*, the names of those whom he thinks had better be advanced, but who have some disqualification, and the nature of the disqualification shall be stated; *the third*, the names of those whom he considers unqualifiedly unfit for the High School. He shall attach to each name the average percentage obtained by its owner from the record of daily work before prescribed.
>
> III. The average per cent obtained by the Grammar School Committee from their examinations for the distribution of diplomas will be accepted by the High School Committee, and from this basis, modified as far as they may deem expedient by the returns and statements of the principals already provided for, admissions shall be made to the High School.

Another interesting chapter in the New Bedford report is what the Superintendent has to say about the teaching of science in the High School. The following are the principles on which this teaching has been re-organized:—

> I. The study of chemistry and physics *both* must be placed in the upper grades; for there is not maturity enough in the younger grades to grasp their philosophy.
>
> II. The classes must be so small—not to exceed 20 pupils in number—that there shall be opportunity for laboratory instruction on the basis of thorough original investigation. No other kind of instruction is worth the having,
>
> III. The classes in physics must be limited to the boys, except such girls as have a strong leaning towards the science and manifest a decided aptitude for it. The female mind, in general, is not so constituted as to apprehend its philosophy.

The third of these theses will be resisted by all that is most gallant in teacherdom. The New Bedford report throws down the gauntlet, and discussion is in order. We confidently expect to hear of Mr. Higginson or the Woman's Journal rushing to the rescue of Woman in the Laboratory.

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

On April 23d the editor of THE ACADEMY expects to sail for a ten weeks' visit to the secondary schools of England and the continent. The May and June numbers will appear as usual. Those for July and August will be omitted, and the September number may be a little late in its appearance.

The proposed amendment to the school law relating to college graduates' certificates, which was brought before the Holiday Conference, by Principal Clark, of Lyons, (See THE ACADEMY, Vol. II., page 37,) has been slightly altered and now reads as follows :

> Any graduate of a college or university which may be designated by the Superintendent of Public Instruction shall, upon presentation to said Superintendent of satisfactory evidence of good moral character and of having taught with success three years or more in this State immediately prior to making such application, be entitled to receive from him a certificate to be known as the College Graduate's certificate, which shall entitle the holder to teach in any of the schools of this State without examination.

The consideration of this bill, it will be remembered, was referred to the Executive Committee to report at the next meeting of the principals.

In the *Journal of Education*, (Boston) for March 3, Mr. Tetlow well emphasizes the importance of scholarship in a teacher. This is especially fitting in these days when, as Mr. Tetlow aptly remarks, "our educational authorities are, with steadily increasing fervor, preaching the gospel of methods." Most teachers are eagerly asking to be shown just how to do this and that, and *methods* are coming to be the "be-all and the end-all." Many have no interest in the history of education, little desire to know more of their subjects or to extend the range of their thoughts, satisfied that if they can drift into the proper method, the current will carry them safely by every obstacle. Judged by the standard of their own approval, they are doing well, and the educational authorities declare that they correctly pronounce the popular Shibboleth. It may well be questioned, however, whether they are especially successful in stimulating a desire for knowledge or in developing independent thought or character of sterling worth.

In *Intelligence* for March first, there is a thoroughly sensible and suggestive article on The Limitations of the Objective Method.

After commenting upon the demoralizing effect of certain much-lauded methods in primary work, and showing that the mischief is extending to the higher schools, it quotes the following words from Dr. S. H. Peabody:

"It may be that I have not looked as earnestly as I might have done, but I have not been able to discern such valuable results from hand culture as my friends seem to find. I do not find that the exact construction of a box leads to the exact construction of an English sentence, but that mechanical students need as much drill in writing as any others. I have not found that the students in mechanical courses are especially good in their mathematical work. On the contrary, I do find that the best workers in wood and metal are they who have proved that they have clear thoughts, and can express them clearly, and they who have shown mathematical ability. Is it not possible that in these materialistic days we push the methods of the laboratory too far? May not the gross and material concepts gathered in the shop so stand as to obscure the clearer and exacter intellectual concepts? The highest ideal of an elipse is not that found by the actual section of a material cone. It is the purer and more luminous concept developed in the mind by its own activity—that activity, which alone can discern the ethereal pathways traversed by the planets in their perennial circuits about the sun. Pupils often complain, when approaching the study of pure science and psychology, that hitherto they have been taught only from things which they could see, or taste, or touch; and that for that reason they find great difficulty in apprehending those grander conceptions which give the highest stimulus to, and mark the highest development of, man's almost divine intelligence."

In a recent *brochure*, Prof. M. A. Herzen, of Lausanne, gives interesting information respecting changes made in the courses of the secondary studies, as presented in a plan by the Conseil d' État of Zurich. Commissioned to study the means of diminishing at the college-gymnasium the number of hours given to the dead languages, and increasing those allowed to the modern languages, the natural sciences and history, the Conseil d' État has prepared a plan which profoundly modifies the whole of the secondary education. The Cantonal school will have three sections, first, the literary gymnasium; second, the scientific gymnasium; third, the technical gymnasium. This last designation is similar to that of our industrial schools. In the scientific gymnasium Latin and logic will find a place, in the literary Greek and Hebrew will be added. The first two will lead to the university; the literary course will be followed by the theologians, and the "philosophers," and the philologians; the scientific by the jurists and physicians; the industrial will conduct to the Federal Polytechnic School.

This triple college-gymnasium directly follows the primary school. The age for entering the classical course is fixed at twelve years, on the completion of the sixth year of the primary school. The age of admission to the scientific course is fixed at fourteen years, the pupil going from the second year of the upper primary school. Pupils enter the industrial school on leaving the upper section of the primary school, and are thus older than those entering either of the other courses.

The purpose of this plan is announced as follows: "To obtain an uninterrupted course of study for all who are to become citizens from the primary school to the university; to make as far as possible, the instruction of all equal by extending and strengthening the common fund of knowledge which every educated man should possess; to retard, as far as possible, the definitive choice of a profession, the premature specialization of knowledge."

Noticeable is the close organization of the scheme under the control of the Conseil d' État, and the supervision exercised over each of the three sections by a commission of seven members who watch over the manner of instruction and the methods of discipline adopted by the instructors, and send reports to the counsel of public instruction.

*BOOKS RECEIVED.**

Progressive outline maps of North America, South America, Europe, Asia, Africa, the United States, Great Britain, and the world (on Mercator's Projection).

These maps are faintly traced on stout paper and are intended to be filled out by the pupil, either in ink or lead pencil. In the teaching of history they will be of great value. The price at which they are offered is so reasonable (two cents each) that it will be possible for a student to devote one map to each period or epoch, and thus picture to the eye the progress of events and the growth or decay of States, at the same time that he has constantly before him a correct outline of the natural features of the country.

Physiological Botany, an abridgment of the student's guide to structural, morphological, and physiological botany. By Robert Bentley, F. L. S., Professor of Botany in King's College, London. Prepared as a sequel to Descriptive Botany, by Eliza A. Youmans. New York: D. Appleton & Company, 1, 3 and 5 Bond street. 1886.

The first 193 pages of this book are devoted to structural botany. Beginning with the most simply organized plant known, the "red snow," and tracing the development of plant-life, the structure of each class is tersely and clearly described. On the last 85 pages are given the leading functions of the organs of a plant, with a glance at the effect of electric light on plant growth.

The book seems admirably fitted for a text-book on a branch of botany not sufficiently studied in secondary schools.

A Guide to Elementary Chemistry for Beginners. By LeRoy C. Cooley, Ph. D., Professor of Physics and Chemistry in Vassar College. New York and Chicago: Ivison, Blakeman, Taylor & Company.

In this new work Professor Cooley attempts to combine the leading ideas of two books previously prepared by him. We can hardly agree with the author's estimate of the value of chemistry as a study in school, but we heartily approve of the objects which he has in view, i. e., to "present the fundamental facts and principles of chemistry in such a way that the student must constantly use his senses to discover facts, his reason in drawing inferences from the data he collects, and good English in expressing accurately, what he sees and thinks." There are few branches of knowledge that will fail to bear good fruit if cultivated in that way. Professor Cooley emphasizes one truth very often entirely lost sight of "Not how much we know is the best question, but how we have got what we know, and what we can do with it, and, above all, what it has made of us." He has "tried to include in it only such things as will be of most value to the many who will finish the study of chemistry in the high school, and to the few also who are there to lay the foundation for college work." "There is more education to be gained by extending the search for facts into other volumes than by skipping parts of the book in use."

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* Any of these books may be more fully noticed hereafter.

These maxims laid down in the preface seem to be well carried out in the text. The experiments are, in the main, simple, accurately explained, and free from danger. The book presents an organic whole which has grown up by the development of the author's plan. It is attractive in appearance, not burdened with irrelevant matter, or weighted down with difficulties beyond the power of those for whom it is prepared. Its method is entirely worthy of commendation.

The first forty pages are given to chemical changes, followed by the chemistry of combustion (9 pages), the chemistry of water (16 pages) and chemistry of the atmosphere (19 pages). Compounds of nitrogen, hydrogen and oxygen occupy 16 pages, and the same space is given to the composition of plants. The remainder of the book after treating of elements, molecules and atoms, is devoted to elements and their compounds under chlorine, sulphur, phosphorus, silicon, potassium, calcium, zinc, iron, aluminum, antimony, tin and lead, copper, gold and platinum. There is a concluding chapter on classification and an appendix containing suggestions regarding apparatus.

The Rise and Early Constitution of Universities, with a Survey of Mediæval Education. By S. S. Laurie, L.L. D., Professor of the Institutes and History of Education in the University of Edinburgh. New York: D. Appleton & Co., 1887. International Education Series.

"This book is not addressed to historical experts, but to schoolmasters and others who wish to know something about mediæval education, and the rise of universities." Limited by this clearly defined purpose, this work possesses much merit. It is the result of industrious study, and presents with ordinary fullness, in fifteen lectures or chapters, the history of the Romano-Hellenic schools, the influence of Christianity on education, a general view of the cathedral and monastic schools during the middle ages, and the rise of the universities of Italy, Paris, Cambridge and Oxford, and Prag. It treats of the early privileges, studies, teachers and government of these universities. The work is fuller, as regards the universities of Italy and Paris, than in tracing the growth of the English schools. It is most incomplete in its representation of the German universities where the foundation of Prag is alone mentioned. The mighty influence of the reformation upon the English and German universities is left untouched, as beyond the scope of the author's plan.

While presenting defects when examined with reference to any single phase of the history of these great schools, this work affords a general view of its subject that is stimulating and, in the main, correct, and will be of value to all interested in the history of education. The introductory chapters we regard as of the greatest merit. The views embodied show a sound knowledge of the true basis of education. There are, however, statements to which we must take exception. The author regards it (page 21) as a curious fact that from the the time education became an object of solicitude to the civil power, "general philosophic ardor and literary productivity began to decline." This statement, if it implies cause and effect, is erroneous; if true, it is only a coincidence; but it shows a lack of appreciation of the real nature of education in the Greek schools preceding this period. The date of the founding of the famous monastery of Monte Cassino is given as 428, instead of 528. The view of the text-books of the later Roman and earlier Christian schools, a knowledge of which the author claims to possess at first hand, is very incomplete. We should never know from his pages what, in the *trivium*, was included under the head of rhetoric, or, in the *quadrivium*, under the head of arithmetic. Hallam's description of these early text-books is far fuller, clearer and more accurate. On page 63, he drops the remark with reference to Boethius' *de Musica*. "There is a sentence in

Boethius which anticipates the modern physics of sound," and then, having suggested this wonderful mine of wealth, stops short, and leaves us in wonder as to what it is. He says (page 76) the Norman invasions began "within thirty years of Charlemagne's death." Does he mean before or after? If after, he is in error; if before, his words are misleading. Later (page 86), he says the order of chivalry arose "in the century that saw the death of Charlemagne." On the following page he proceeds, "Taking its rise in the tenth century, it grew, etc." Chivalry was not an *order* in any true sense of the term at this time, but later became an institution, and there is a double confusion in the author's mind as to the time.

The "actuating causes" which the author gives (page 100) of the rise of universities, viz: the great weight of traditionary learning, and a lay or anti-monastic feeling are inadequate as an explanation of the history of this remarkable movement. The earliest physicians were frequently ecclesiastics. There is a strange confusion where Dr. Laurie says the European revival of the twelfth century owed nothing to the universities of the empire, etc., "save the Saracenic impulse," (page 107.)

The author anticipates often the later constitution of universities as (on page 136) where he speaks of the *licentia docendi*. He describes the university of Naples before that of Bologna, although in time it was later. He does not state the origin of the use of many university terms as *rector*, nor does he mention that the rector of Bologna was a student. He does not show how the contest between the imperial and papal prerogatives stimulated the study of Roman law. The granting of the rescript of Frederick Barbarossa in 1158 to the university of Bologna, may have been out of gratitude to the jurists of the latter for their favorable interpretation of his prerogatives in Italy. The privileges of journeying scholars contained in this famous charter, based upon that of Justinian to the law school of Berytus, are not clearly stated. Neither is that of the province of the papal legate, and of royal and imperial deputies, who were stationed near the universities to protect the privileges of the scholars of different nations. The use of the term "philosophers" for "artists," prevailed in Bologna. The order of the development of the four faculties at Bologna is not clearly or correctly stated; the relation of the physicians to the artists in Paris, and the place of medicine in the English universities is not properly presented.

"In Germany," the author says, "the mastership never took hold." He forgets that "Melanchthon" was "Master Philip," while Luther was "Doctor" Martin Luther, and that in numerous German universities the doctorate always carries with it the master's degree. The explanation of the term "university" in its application to a learned body is not clearly given. It meant originally "society," or "association," and there were universities of tailors, of shoemakers and of bakers. University implied unity of organization. The relation of the Chancellor to the universities, and his jurisdiction in Oxford and Cambridge, and the university jurisdiction on the continent are not fully presented.

The relations of the universities to the stationers and book makers; the whole question of fees, manuscripts and classic and legal texts is hardly touched upon, and the constitution of the French universities outside of Paris is remanded to a foot note. Facts are too often tossed in outside their proper connection While this book cannot rank as a permanent manual of the subject of which it treats, it nevertheless will fill for the present a place for which some book of reference is essential.

We give below a bibliography of current periodical literature on education and other topics which we think will be of special interest to teachers. The list includes only articles from periodicals not nominally educational. It covers the first three months of the current year, and will be continued in succeeding numbers. No claim of completeness is made, and the comments are purposely made as brief as possible. Articles of prime importance will, as a rule, be mentioned in *Notes*.

American Citizen, Training of the. Edward E. Hale. *Unitarian Review*, Feb. A suggestive article.

Arbeiterunruhen in den Vereinigten Staaten von Amerika, die jünsten. Rudolph Doehn. *Unsere Zeit*, Feb.

Ausgrabungen in Babylonien. Edward Meyer. *Deutsche Rundschau*, Jan. An account of the interesting discoveries of recent years. The numerous cuneiform tablets found, the remains of old libraries, give a glimpse of social, commercial, and political life in the time of Nebuchadnezzar, and help fix the chronology of kings who lived one or two thousand years earlier.

Bedeutung der völkerpsychologischen Arbeiten Adolf Bastians, über die. Julius

Happel. *Zeitschrift fuer Volkerpsychologie,* Jan.

Biology and sociology. Henry Sewall. *Science,* Feb. 25.

Biology as a branch of education, modern. H. W. Conn. *Science,* Feb. 18.

Books That Have Helped Me. Rev. Dr. Edward E. Hale. *The Forum,* Mch.

Botany, is Botany a suitable study for young men? J. F. A. Adams. *Science,* Feb. 4.

Brain-Forcing in Childhood. W. A. Hammond, M. D. *Popular Science Monthly,* April.

Cambridge, The university extension at. Oscar Browning. *Science,* Jan. 21.

Case for free Education, the. E. North Buxton. *Fortnightly Review,* March.

Charity Organization. Henry C. White. *Yale Review,* March.

A timely article upon the work and methods of Charity Organization Societies and the imperative necessity of such agencies.

Chemana, The Indian School at. H. L. Wells. *West Shore,* Jan.

An account of a Government school, partly industrial, that seems to be civilizing the Indians.

Co-education: a symposium. James B. Angell, LL. D. and others. *Baptist Quarterly Review,* Jan.

Arguments pro and con by eight prominent educators.

Composition, the characteristic curves of. T. C. Mendenhall. *Science,* March 11.

Prest. Mendenhall here gives, with illustrations, a paper similar to the one read by him at the Buffalo meeting of the association of the advancement of science.

Contemporary Life and Thought in the United States. University Education. President Charles K. Adams. *The Contemporory Review,* Jan.

Criminals, The Extirpation of. Chas. Dudley Warner. *New Princeton Review,* Jan.

A sensible discussion of the relation of society to criminals and a plea for an indeterminate sentence in the case of those confirmed in crime.

Eau potable, l'. M. Brouardel. *Revue Scientifique,* Feb. 26.

The writer shows the dangers that lurk in drinking-water, and the need of hygienic precautions.

Education at the South. Daniel H. Chamberlain. *Yale Review,* March.

An attempt to prove the unconstitutionality of the provisions of the Blair bill, and to show that such a measure would hinder the work of education through the common schools.

Elective System, possible limitations of the, II. George H. Palmer. *Andover Review,* Jan.

[This is the conclusion of the article in the December *Review,* the tone of which seemed to us so excellent. This latter part is hardly equal to the former. In fact it must always be easier to show the mistakes of others than to arrange a system without faults.]

Eloquence, The Essentials of. W. M. Taylor. *New Princeton Review,* March.

Freytag Gustav. Ernst Ziel. *Unsere Zeit,* Feb.

Geography, The study of Franz Boas. *Science,* Feb. 11.

Germany, Academic freedom in. Henry W. Farnam. *Yale Review,* Jan.

This article indicates some of the evils connected with "academic freedom" in Germany, and shows the desire of some professors to devise plans for securing a better attendance at university exercises.

Greely arctic expedition, The magnetic and tidal work of the. C. A. S. *Science,* March 4.

Greek, When should the study of, G. be begun? *Science,* Feb. 18.

Greek element in English, the. *Science* Feb. 18.

Hugo, Victor. John Safford Fiske. *New Princeton Review,* Jan. and March.

Industrial Education in America. W. Odell. *Nature.* Dec. 2.

Labor, Historical sketch of the Knights of. Carroll D. Wright. *Quarterly Journal of Economics,* Jan.

Latin, La Question du en Allemagne. M. Schwiedland. *Revue Scientifique,* Jan. 1.

Another plea for modern languages and science in place of the ancient languages.

Learning, the Revival of. Rev. John W. Chadwick. *Unitarian Review,* Jan.

Indirectly an argument for classical study, as "the classical curriculum of modern education is a reminiscence of the humanistic revival of the fifteenth and sixteenth centuries."

Locksley Hall. T. R. Bacon. *Yale Review,* Feb.

L' Enseignement technique au Congrèss de Bordeaux. M. E. Berr. *Revue Scientifique,* Jan. 8.

1. The London University Calendar. 1886–7.
2. Reports of the Association for promoting a Teaching University for London.
3. Minutes of Convocation of the University of London, 1885–6.
4. Report of International Conference on Education, 1884. Vol. 3. University Education, London, 1884.
5. L' Universite' de Londres. Par M. Buisson; Ancien elève de l'ecole normale superieure. Paris, 1879. *Quarterly Review,* Jan.

Manual Instruction. Sir John Lubbock. *Popular Science Monthly,* Jan.

Mouvement litteraire. M. M. Francisque Sarcey et Henri Chantavoine. *Nouvelle Revue,* Feb. 1.

The first part of this is a review of Vol. I. of "L'education de femmes par les femmes" by Octave Greard. This volume is devoted to Fenelon, Madam de Maintenon, Madame de Lambert, Rousseau, Madame d'Epinay, Madame Necker, and Madame Roland.

Mouvement litteraire en Allemagne, M. Hennequin. *Nouvelle Revue,* Jan. 15.

An account of the life and works of Gustav Freitag, "the most celebrated of contemporary German novelists."

Napoleon Bonaparte. Henri Taine. *New Princeton Review*, March.

This article appears also in the Revue des Deux Mondes, Feb. 15. The latter part of the article shows a side of Napoleon's character that deserves study by every teacher. Napoleon possessed some of the most important pedagogical qualities in a marvelous degree. He could inspire others and make them work; he knew men and things rather than books and symbols; he regulated his own mental activity in the most orderly and economic way. He says of himself:

"Various subjects and affairs are stowed away in my brain as in a chest of drawers. When I want to take up any special business I shut one drawer and open another. None of them ever get mixed, and never does this incommode me or fatigue me. When I feel sleepy I shut all the drawers and go to sleep."

Negro's need in education, the. George R. Stetson. *Unitarian Review*, Feb.

A discussion of the moral and industrial educational needs of the negroes.

Nurses, The Training school for, in San Francisco. Mary D. White. *Overland Monthly*, Feb.

An account of a school modeled after that of Bellevue Hospital, New York.

Physiology, On the True Aim of. Professor W. Preyer. *Popular Science Monthly*, April.

Politics, Of the Study of. Woodrow Wilson. *New Princeton Review*, March.

An interesting discussion of the present method of historical and political research.

Psychologie de l'enfant, la. M. Lévy Bruhl. *Revue Bleue*, Jan. 8.

Based upon Perez's important works.

Public instruction in New York State in 1886. *Science*, Feb. 18.

Religion in the public schools. Archibald Alexander Hodge. *New Princeton Review*, Jan.

The author argues that it is "impossible to separate religious ideas from the great mass of human knowledge;" that "Christianity is an original and essential element of the law of the land;" that the majority of people in this country are Christians. He urges that a practical quantity of religious truth determined by a consensus of Catholics and Protestants alike should be recognized in the literature and teaching of the public schools.

Rossetti in prose and verse. William Sharp. *National Review*, March.

St. Thomas D'Aquin et la science moderne. M. Domet de Vorges. *Revue du Monde Latin*, Feb.

The first of a series of articles upon the subject.

Schools in Egypt. R. Arrowsmith. *Science*, March 18.

Science in Religious Education. Daniel G. Thompson. *Popular Science Monthly*, Jan. and Feb.

Scoperte sui sensi nell' uomo e negli anamali, le nuove. Ernesto Mancini. *Nuova Antologia Rivista di Scienze, Lettere e Arti*, Jan. 1.

Selbstbeobachtung und psychologische Analyse. Johannes Volkelt. *Zeitschrift fuer Philosophie and philosophische Kritik*, Jan.

Sex, The Significance of. Julius Nelson. *The American Naturalist*, Jan.

Slöyd. Evelyn Chapman. *Science*, March 18.

Socialism, The alternative to. *London. Quarterly Review*, Jan.

A plea for voluntary co-operation.

Springfield Early. Edward W. Bemis *Yale Review*, Feb.

"Old time answers to present problems as illustrated by the early legislation of Springfield."

State Education in America. *The Westminster Review*, Jan.

Tariff, Some Political and social aspects of the. E L. Godkin. *New Princeton Review*, March.

Teachers, the training of. *Science*, Jan. 21.

Theology as an academic discipline. A. M. Fairbairn. *The Contemporary Review*, Feb.

Thought Transference, some miscalled cases of. A. H. Bigg and M. L. Hatchard. *National Review*, Jan.

Training of the facilities of judgment and reasoning, The, H. C. Bowen. *Science*, Jan. 21. and Feb. 18.

Wissenschaftliche Charakter der Ethnologie. Dr. Ths. Achelis. *Zeitschrift fuer Volkerpsychologie*, Jan.

Womanhood in Old Greece. Mrs. E. Lynn Linton. *The Fortnightly Rewiew*, Jan.

Woman and the Family, Higher Education of. Dr. L. M. Hall. *Popular Science Monthly*, March.

Women, The effects of civilization upon. *National Review*, March.

A somewhat pessimistic article, which, nevertheless, shows very truthfully the obstacles women encounter in modern society, especially in England. The author claims that the progress of civilization during the last seventy years has been disastrous to women. Instead of robbing men of work, women have been deprived of their occupation as spinners, weavers, bakers, etc.

Women, The lower education of. Helen M'Kerlie. *The Contemporary Review*, Jan.

A readable paper, one of the latest in the series *pro* and *con*, which began with Dr. Withers-Moore and Mrs. E. Lynn Linton last year and has been vigorously continued. There is little attempt in this paper to throw any light on the practical questions of women's education, but rather a desire to say sharp things than to show what to do and how best to do it.

Working Women. Ida M. Van Etten. *North American Review*, March.

Yale student, the. Thomas R. Bacon, *Yale Review*, March.

A review of President Dwight's introductory lecture in the Phi Beta Kappa course for 1886-87.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

VOL. II. MAY, 1887. NO. 4.

*POETRY IN THE SCHOOL ROOM.**

FRANCIS B. GUMMERE, SWAIN SCHOOL, NEW BEDFORD.

At a time when parents and physicians are loud in their denunciation of the horrors of cramming in our schools, woe betide the man who shall plead for a new study. At a time when the word "practical" is writ large over every entrance to our national life, when industrial schools seem to many the only proper form of public instruction, when the "high priori road," once so crowded, is left to gather grass and weeds, double woe betide the man who talks of poetry in the school-room. Certainly I would tempt no such fate. I have no intention of pleading for a new study ; and so far as the connexion of poetry with the school-room is concerned, not even here can I be said to pine for what is not. English literature is taught, I suppose, in every secondary school of the country, and will be taught until the Vandals come again with Gradgrind at their head. Now wherever English literature is, there is poetry. Ask the critic for the great names of our literature, and Shakspere, Chaucer, Milton, Gray, will be on his lips long before Bacon, or Swift, or Burke. If any part of English literature is worth studying, it is that noble store of poetry which the grudging suffrage of the world has confessed to be without a peer in modern times. The subject, then, implies no revolution. We do study poetry in our school-rooms, but how do we study it?

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*Read at the meeting of the Classical and High School Teachers, Boston, April 9, 1887.

For various reasons—chiefly, perhaps, the popular idea that nothing written in our own tongue can offer any difficulties,—the average scholar receives no systematic instruction in the principles of English poetry. Consequently, as regards its nature, forms, and divisions, he has but loose and often false ideas. Perhaps he may bring bits of poetic lore from his classical studies, just as many of us first learned English grammar when we studied Latin; but even then his knowledge is scattered and casual. The pupil who does not study Latin or Greek, is dependent on a hurried recitation in literature or in rhetoric, where formal instruction in poetics has rarely any foothold whatever. He may or may not learn the great divisions of poetry; I fear that in most cases he goes out of school thinking Paradise Lost to be a genuine example of the epic. Even the most accomplished teacher can hardly be expected to do in odd minutes work that requires systematic, and, to some extent, exclusive study. Certainly in the matter of versification, it is reasonably sure that neither in school nor in college is a scholar likely to get any trustworthy instruction on the subject: it is almost a university subject, a university accomplishment. But may it not be assumed that at some stage of secondary education, the pupil ought to have a week or so of definite instruction in the science of poetry? If not, then banish poetry from the selections of literature which pupils have to read. For obviously the poet deliberately resolved to put his thought in verse rather than in prose; without a metrical form, without poetical diction, the thought could not be as it is; the rhythmical structure means something,—shall I say, means everything?—plays a definite part, and demands definite and systematic study. May I here raise a protest against the plan, pursued in so many schools, of writing out an "abstract," or "analysis" of a passage of poetry? Only the most straightforward epic style can stand such treatment, and then the treatment ceases to have any object whatever. An "awful example" of this sort of thing is furnished by the article on "English as She is Taught," in the current *Century Magazine*. Imagine the average grammar-school-boy set to this task, and tumbling his barrow-load of dirt into Tennyson's "Brook." [Render unto Cæsar what is Cæsar's; keep that precious grammar-school-boy prose for the teacher of composition: but spare the poem.] Then, too, teachers of elocution used to be very pestilent in the way of turning all verse into prose, by the aid of "natural tone," and by their law that metre is put into poetry only to be suppressed by him who reads aloud. This terrible "elocutionist" waves his hand, and the singing, sparkling, dancing, mountain-brook becomes in a trice the soberest duck-pond. But when Tennyson used to read his verses to his friends, and Carlyle sat hugging his legs and crying, "Alfred's got it!" it is notorious that Alfred was committing the direst sin known to our great authorities: he was reading "sing-song," viz., metrically. Despite these elocutionary authorities—perhaps, however, they don't do so any more—let us read a poem as a poem, verse as verse, or else not read it at all.

But here I pause to insist on a very practical point of view. I believe that it is useless to take up the study of poetics in school as a critical or æsthetic affair. I should consider it as a purely technical study, so far as definite rules are concerned, and leave all higher criticism either to the teacher and the special occasion, or else to the future and to private reading. The poetic sense is not bought with a price; and even the critics cannot agree on the æsthetic line between good poetry and bad. Hear Swinburne berate Byron, for example; hear Matthew Arnold name Byron as the most creative force in our literature since Shakspere! Give young scholars sound ideas of the technical make-up of poetry, its forms and divisions, the indispensable conditions of it: let this be the limit of systematic instruction. It is the teacher's privilege to throw out hints and suggestions which may bear the richest fruit; but you cannot nail such things down to dogmatic statement. You do not want to mix the hypothesis, the analysis, the discussion of a Browning society, with the dogmas of the class-room. I have gone into this subject to some extent in a little article on *Metaphor and Poetry* in the Modern Language Notes, June, 1886. An elementary text-book ought to shun abstract criticism; and, above all, matters of opinion ought not to be taught as principles. For the same reason I should avoid selections from contemporary poetry in making up a course of poetical readings for the school. In the earlier stages, of course, this rule does not hold; "Readers" must often, for obvious reasons, choose the simple and charming work of living poets, and the best American singers are either living or else fresh in our memory. But I refer to the selection of passages or poems for critical study—in the sense defined above—as examples of the technical construction of poetry. General consent makes it safe to read Chaucer, Shakspere, Milton, and even Wordsworth or Scott—though Wordsworth offers little for school purposes. Especially, I could wish to see Chaucer more generally read. He has so few difficulties compared with the rewards. He is easier than Shakspere; indeed, it is hardly safe to read Shakspere in any classes short of the upper rooms in the high school. It is like the common mistake made by American teachers of German;

we put Hamlet into the hands of a child, just as they give Faust to a class of barely a year's standing. But with Chaucer the difficulties are all on the surface. He never palls. As regards metre, who has so unerring an ear for rhythm, whose verse is so smooth, whose diction so free and satisfying? For earlier stages—say in the grammar-school—a modernized story of Chaucer's is far better than the sentimental stuff so often chosen. With a few omissions, Dryden's version of the Nun's Priest's Tale would make an excellent selection. Our poetry is not rich in fables, to be sure; but some are available. Then, if we admit modern poetry, and in this stage we may admit it, there are admirable school editions made from our best poets. Indeed, I hope the Classics for Children, in poetry as well as prose, will one day make impossible the false note that we so often hear in school selections of verse.

But I want this paper to have a more practical bearing on the subject. Instead of further generalizing, let me come at once to the *crux* of the matter. I advocate the teaching of poetics in our schools,—the simple facts very early in the course, the formal principles as a part of all high school instruction in English Literature. But the main interest centres in versification; for modern criticism declares that metrical form is the only condition of poetry about which we are permitted to dogmatize. *Can* we dogmatize about it, though,—can we lay down principles to which all critics will assent? Perhaps not: the subject, I admit, is beset with difficulties, and there certainly exists a lack of agreement among scholars as to the first principles of metre. All the more reason, then, that we should try to reach such an agreement; and it is for this purpose that I essay the following as a sketch of the proper foundation for a study of English metre. Clearness, not originality, shall be my aim;—common sense, not brilliant theory.

To begin with, I think we shall clear ourselves of considerable difficulty if we decide to take the verse as a whole, not the individual "foot," for our metrical unit and starting point. By verse I mean, of course, what is often called a "line." It is a great misfortune that we have come to use "verse" for "stanza." Now evidently a verse is the metrical unit for the poet himself: he has a verse in mind as he composes, but, I should say, never a single foot. Again, to take the verse as metrical unit relieves us of several knotty problems. If we begin with the foot, and so build up a verse after the classical fashion, we encounter immediate difficulty. Schmidt (in his well-known *Leitfaden*, and the English version of his work on classic metres) begins the first foot of every verse with the first metrically accented syllable. This is regarded as the proper method by many writers on Germanic versification. But listen to so ripe a scholar as ten Brink. In his *Chaucer's Sprache und Verskunst*, p. 172, he says: "It is customary in Germanic metres to begin the first foot with the first accent; but this is wrong, for the "Auftakt," even when suppressed, answers as well as any other unaccented syllables to a rhythmic division of time." The perplexity, in which this clash of authorities seems to leave us, vanishes, if we will only renounce the idea of standing at the entrance of a verse and trying to find the first "foot." Let us rather seize the whole verse as a unit, and then analyze it as made up of certain measures or bars, which, not for themselves, but by their relations with one another, produce upon our ears the effect of rhythm or regular recurrence. We shall then agree with ten Brink that the initial one or two unaccented syllables, when they occur, are to be reckoned as part of the verse: and this is still more evident if we consider that the rime at the end of the preceding verse effectually closes the rythmic group, and forces us to include this so-called "Auftakt" in the new verse. For we must look at English metres in our own way. Efforts are constantly made, even now, to explain modern metres in accordance with the principles of classical verse: *e. g.*, the paper read by Dr. Goodell before the American Philological Association in 1885. He asserts that quantity plays a leading role in our versification, as well as in the ancient. If he simply broke a lance for mere recognition of quantity in our verse, as a subordinate factor; if he showed us how important it is to study the phonetic basis of all versification, his work would be welcome. But he ignores the labors of men who have worked on the lines of historical investigation in Germanic poetry; he points out proceleusmatics, cyclic dactyls and the other complicated Greek measures, as common in our modern verse; and he not only opposes the best German authorities, but he runs directly counter to such a radical reformer as Ellis, who says (quoted in Mayor's Chapters on Metre, p. 59): "This length of syllables has much to do with the force and character of a verse, but does not form part of its rhythmical laws." Dr. Goodell was opposed at the time by Prof. W. D. Whitney (cf. Transactions, p. VII, f.) Another writer on our metres, who fell into the same blunder of separating the study of English verse from the study of English words and the historical development of our language, was Sidney Lanier, himself a poet of grace and occasional power. He actually treated Anglo-Saxon verse from the modern point of view, and dogmatized about it on the basis of the selections in Sweet's Reader, ignoring the splendid work of Vetter, Rieger, and others—which was simply rushing into the arms of failure. The man who would write with authority (of course this applies only to special work), even on so slight a matter as the metre of Longfellow's *Psalm of Life*, cannot approach his work properly till he knows something of the evolution of modern verse out of the old, till he has studied, say, Schipper's admirable book on Old English Metre. Moreover, like Lanier, Dr. Goodell uses musical notation for his schemes of English verse. This, it seems to me, is unnecessary, unscientific and misleading. Of course, in a general way, music and poetry have a common basis. Once they were inseparable. Now, however, they are absolutely different arts, and we have the strongest reason to keep the terms and definitions of one, rigidly apart from the terms and definitions of the other. Poetry, like music, is metrical,—deals with measures or intervals of time; poetry, like music, is rhythmical,—is marked by regular recurrence of accents; but poetry is not, like music, based on melody or pitch: by general consent, pitch is not a factor in versification. Moreover, it is well known that the poetic faculty and the musical faculty do not always go together; many poets have been famous for their rhythmic skill and for their dullness to melody; Gautier's amusing impartiality to the rival claims of the fourth string of a violin, played upon by the most skilful violinist, and the squeaking of a saw, has been recently in the newspapers. English meter has a right to its own terminology.

The terminology which we employ for school purposes must be not only exact, but simple. Prof. Sylvester's Synectic, Anastomosis, Phonetic Syzygy, Symptosis, and so on, are not only good mouth-filling phrases; they are interesting and convenient for scholars. But in the name of humanity let us handle such weapons only in the solitude of our own studies. To put into a text-book, as some authors do, statements to the effect that a repeated word or sound, *i. e.*, symploce, according to the place where it occurs, is called Epanalepsis, Anadiplosis, or Epiphora, is merely a question of killing your thousands or your tens of thousands. What terminology we use should be as far as possible made up of ordinary words, like "measure," "stress," "pause," and so on; always the thing or idea first clearly understood, and then the name.

But this is very far from meaning carelessness, or unscientific foundation for the work. True, there is a school of critics who scorn all analysis of a verse; the verse is either rythmical or not, according to its general effect on the ear. That is absurd criticism in itself, and worse than absurd for the class-room, where we wish, if possible, to train the ear to tell good metre. First in our work must come the foundation of *Phonetics*, and here, again, the thing, rather than names for the thing. Human speech, the physical character of words, must be taught in detail; for this is the raw material of verse. Stress, quantity, vowel, diphthong, consonant; all the simpler elements of the science must form the basis of any study of poetry, and indeed of any study of language. A good text book of Phonetics, very small, but based on a sound knowledge of both philology and physiology, is one of our greatest needs. Then we may take up the verse itself, the unit of metre. How shall we treat it?

Poetry, like all art, shows in its form a pleasing conflict between unity and variety. There lies in the essence of rhythm a certain unity, a necessity, unalterable by individual will. Against this necessity plays the constant impulse of the single poet, his individuality, his desire for unhampered action. The first element is expressed by the scheme or formal metre, which is brought out by the process of "scanning." The second element is more subtile, but is what differentiates poetry and gives it life, character, beauty, force, personal appeal. Hence we must treat each verse of poetry (*a*) on the formal, and (*b*) on the individual side. Either element in excess is disastrous to poetry. Poetry may have too much metre, and it may have too little.

Taking first the scheme, we find that it provides—I am here practically quoting from my *Handbook of Poetics*, p. 170 ff.—for a given number of time intervals, or measures, all of equal length. It is in this sense that English verse agrees with all other verse; it is based on time-relations, on recurrence at stated intervals. The lapse of regularity in these intervals takes away metre, and, technically, turns the words to prose. The question of so-called prose-poems does not concern our present purpose. Further, for English verse, the scheme requires that each measure shall be marked by one, and only one, strongly accented syllable, called a stress-syllable, every stress in the verse having equal force. Further, each measure must have at least one, but not more than two, unaccented syllables, called weak syllables; the strict rule would demand an equal number of these for each measure of the verse, and the same position with regard to the stress syllable, *i. e.*, a uniform distribution. Such a scheme for English verse would have four divisions. If we mark weak syllables by 1, and stress syllables by 2, we should have four leading measures: 12, 21, 112, 211. Each measure could be repeated as often as the ear would permit the unity of the verse to be regarded; —in practice, not beyond seven or eight. Hence our old friends, the iamb, the trochee, the anapest, the dactyl.

But then, schemes are never adhered to. The reason for this fact is twofold—historic, and in the nature of the case. In Anglo-Saxon verse, though Sievers has been making investigations to prove more regularity in the number of weak syllables than earlier authorities allowed, it remains certain that the accented syllables were the main consideration. A verse had now five or six, now thirteen or fourteen syllables. Under Norman influence, we imported the Romance principle of syllable counting; a struggle resulted between native and foreign systems, happily solved by Chaucer, who reconciled the rhythmic of the native verse with the metric of the foreign. Our modern verse is based on this compromise. But not only on historic ground is such a rigid scheme impossible in practice; the nature of spoken words and the individuality of the poet bring about the same result; again I must refer to my *Poetics*, p. 171. I cannot here overrate, for practical purposes, the importance of a study of phonetics, which gives insight into the nature of connected speech, and also the importance of a rigid analysis of the undivided elements in a verse. It is because they have neglected these things; it is because they have looked merely at the metrical scheme, that the old school of writers on metre—represented, say by Seeley and Abbott in their *English Lessons for English People*—make such sad work of it with their perpetual exceptions and their intricate rules. For, first, the poet wilfully breaks the scheme. He refuses to make each measure, say, of the form 12; he refuses to give the various stresses equal weight; he refuses to make the measures of equal importance; and, secondly, if he would follow the scheme he could not, for the rhetorical accent, as well as the word-accent, crosses now and then the metrical accent; syllables vary in weight and quantity, and the infinite variety of tone-color adds a new element to the individuality of each verse. Verses are like leaves of a tree—all alike and all different. Another subordinate factor of verse is the pause,—whether the ordinary cæsura, or the compensating pause which takes the place of a syllable. This, too, especially in the latter phase, crosses and breaks the strict metrical scheme of a verse. The result is that when one scans by feet, one is perpetually accounting for the fact that a given foot ought to be an iamb, but isn't, and one is much troubled to make a list of what else it can be if it isn't an iamb, and so on. Meanwhile the whole verse is sure to be iambic. As a rule, good poets break the scheme in some part of the verse and adhere to it in another, or, more rarely, depart from it in one verse and return to it in the next; mostly the break is at or near the beginning of one verse. Thus, to take a line or so at random from a familiar poem, in

> Just now the dry-tongued laurel's pattering talk
> Seemed her light foot along the garden walk,

we have undoubted iambic five-stress (heroic) verse. There is considerable variation in the first line, and the second begins with four heavy syllables—almost what the old school would call two spondees. But the last three measures catch the exact movement of the scheme, and we feel sure, as we scan the verses, that they have the iambic movement. But looking for individual iambs will be a different business. Very suggestive is another passage in the same canto of *Maud:*

> Is that enchanted moan only the swell
> Of the long waves that roll in yonder bay ?

We begin here with slow emphasis of the scheme-movement, then meet a pause and the dislocation of stress so frequent after a medial pause—here with very pretty effect—then begin a new verse, really with a pyrrhic and a spondee, if we go by feet, certainly with total disregard of time, quantity and stress as ordered by the scheme ; then fall into the movement for the finish. Taking the whole verse we readily see the compensation in "of the," followed by "long waves ;" we readily feel the poet's mastery of his movement, even when he hides it. In short, good poetry always reminds us, so far as the metre is concerned, of a beautiful human form in which the skeleton neither protrudes, and so makes a stiff, angular effect, nor yet is lost in formless obesity. I recommend to teachers, as a perfectly practical matter, this plan of taking the general law of a uniform verse as basis, and then reckoning the aberrations of individual treatment. Without going one step away from safe, technical instruction, the scholar will penetrate well into the mechanism and secret of verse, and cannot fail to grow in appreciation and critical discernment. There are other elements in verse to which I can now pay no attention. Thus it is interesting to inquire why, with the same scheme, some verses are so slow in movement, like those just quoted, and others so rapid ; or what it is that makes Browning's blank verse so different from Tennyson's. I may add that the names "iambic," and so on, do no harm, if one understands that they apply to movement, to a verse-scheme, not to the separate feet. It is not the feet in themselves that give character to a verse, but the sum of relations of the different parts. Measures are, of course, the foundation of verse ; each verse can be analyzed into measures, just as it can be combined with other verses into a stanza ; but these measures are like steps in dancing, and we ought not to separate them from other measures : only in combination with these are they valid. I have no time to add anything about these individual qualities of verse : such are tone-color (an attempt by Prof. Tolman to reduce this matter to law will be found in the March number of the

Andover *Review*), rime, parallel structure (like the pariphony of prose, such as in Lyly's *Euphues*); and the shrewd hints of Prof. Sylvester about Phonetic Syzygy. Nor can I touch the stanza.

To conclude, what have I now to say to the objector *in toto?* How answer him who challenges the use of this whole matter of studying and analyzing metrical form? Here I have brave allies: see, *e. g.*, Prof. Mayor's recent book on English Metres, p. 1, f. Why, indeed, analyze or study anything—in botany, for example? Why not be content with the sight and odor of the rose; why tear it to pieces and rudely snatch its secrets of growth and form? In Heyne's *Reisebilder*, we remember, the poet has plucked a pretty flower and gives it to a lovely girl as they stand together on the Brocken at sunrise. A crusty old fellow, who is with the girl, looks at the flower, counts the stamens, and says drily: "It belongs to the eighth class." A very sorry conclusion to the scene, we admit; but it is no argument against the study of botany. It is irrelevant to our question, —a threadbare plea, moreover, that can be, and has been, applied to half the subjects of instruction in our secondary schools. If we study poetry at all in the class-room, let us study it thoroughly.

BRYN MAWR COLLEGE.

Mr. William Meredith, the celebrated Philadelphia lawyer, is reported to have said that there was no natural affinity between Pennsylvania and education; and he added, with some unction, that the worst of it was that even when Pennsylvanians did manage to be educated, it did them no good. Since Mr. Meredith's day, his native State has made several steps to redeem itself from this imputation. In the last ten years the University of Pennsylvania has roused itself from a slough of conservatism and inactivity, and has made good progress towards a wider course and higher standard. But nothing has so broadly marked the increasing interest in the question of education in Pennsylvania as the opening, in the autumn of 1885, of the Bryn Mawr College for women, at Bryn Mawr, ten miles from Philadelphia, though it must be added that it is not to a native of Pennsylvania that the State owes this great gift. Dr. Joseph W. Taylor, the founder of Bryn Mawr College, was born in New Jersey, in 1810. His parents were members of the Society of Friends, and the son never departed from the religious convictions in which his early youth was trained, but his generous bequest was restricted by no sectarian limitations. Dr. Taylor had formed the project of founding a college for women some years before he began to put the plan into execution. He was a man singularly free from narrow prejudices, and he determined that the college should be in harmony with the most enlightened and advanced system of the present day. With this object in view, he visited many universities and institutions of learning, both abroad and at home, but he finally chose for his chief counsellor, Mr. D. C. Gilman, President of the Johns Hopkins University. It is largely to this fact that Bryn Mawr College owes its characteristic features ; and it is hoped that in the course of time it will be possible to offer to women at Bryn Mawr opportunities for advanced study, for individual investigation and original work, such as the course of a woman's college does not usually include.

The prominent points which at present distinguish Bryn Mawr College from other similar institutions are—instruction almost entirely by lectures ; the arrangement of studies called the "group system," and a graduate course offered to students in almost all the departments of the college. As this second feature may not be quite clear without further explanation, it will be as well to define it at once. Under this system there is no regular scheme of uniformly graded studies, through each step of which every student must pass before taking a degree. There is no dividing line strictly marking off "Freshman," "Sophomore," "Junior" and "Senior"; nor yet is there the complete absence of guidance, the entire freedom from control of the "elective" system. The advantages of the two plans are here combined, and their weak points avoided. This system escapes the monotony and rigidity of the strictly prescribed, uniform curriculum, while it is free from the risk of entrusting the choice of studies entirely to the fancy or idleness of the student. Several courses of study are carefully mapped out, each considered the equivalent of the other in amount and difficulty of work, and each equally entitling the student to a degree. In spite of the liberty that may be exercised in the choice of a course, certain studies are always required, as forming the necessary basis of a liberal education. No student can graduate without a reading knowledge of Latin, French, and German, and some acquaintance with Greek. In addition to this, the following course must be pursued by every candidate for the degree of Bachelor of Arts : *English*, two years,* one year of *Science;* or, *Science* and *History*, *i. e.*, any two of the following minor courses in Science ; *Physics*, *Chemistry* or *Biology* (either vegetable or animal) or else, any one of these courses, together with *Ancient* or *Modern History*. Also one year of *Philosophy*. These required courses of one year each are called the *Minor Courses*. The *Major Courses* are optional combinations of a two years course in any two branches, supplementing the *Minor Courses*, and it is the choice of the *Major Course* which is left to the discretion of the student. For instance—a student may wish to take a *Major Course* entirely in languages, and may choose any two languages and pursue a two years course in each. Or two years of Mathematics with Greek or Latin may constitute a *Major Course ;* or Chemistry with either Animal or Vegetable Biology ; or History with Political Science. In this way the student's individual tastes and capacities may be consulted without losing sight of general mental training ; and as there are no strictly divided, equally advancing classes, a student who wishes to work more slowly may prolong the course through five instead of four years, (the ordinary course) and take the final degree. There are also Free Elective studies to be chosen by the students, covering five hours weekly for a year and a half.

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* A "year" means five hours a week through the academic year.

The lectures are designed to give the student the benefit of the most recent investigation and criticism upon the subject matter in hand, to supply a scheme of supplementary reading, with suggestions and directions for future work or investigation. It is desired that these lectures shall be carefully followed with notes, and these notes, in addition to their immediate practical value for reference, will be of permanent service in any future work which the student may undertake. The lecture system has several advantages over the text-book method, one of which is that, with a happy choice of lectures, it is possible to give much more vitality to the work, and enable an instructor to communicate his personal enthusiasm and individual view of a subject in a manner which is often most inspiring, and the relation between the professor and student often becomes very stimulating. In this respect Bryn Mawr College is very fortunate, as almost all the members of the faculty have had training which has peculiarly fitted them for this method of instruction, having studied in various German Universities or followed courses of study at the Johns Hopkins University.

Dr. Taylor's liberality provided for Fellowships to be awarded yearly, i. e., in English, Mathematics, Greek, History and Biology. These Fellowships entitle the holder to free tuition, a furnished room in the college building and the sum of $350 for one year. There is also the Bryn Mawr European Fellowship which will be awarded annually to a graduate of Bryn Mawr College for excellence in scholarship, and will entitle the holder to $500, to be applied to the expenses of one year's study and residence at some foreign university. There are besides three partial scholarships of $200 each that are open to members of the Society of Friends who are unable to pay the full charges of tuition and residence. The scholarships are for one year only, but may be renewed until graduation, if the progress of the candidate is satisfactory to the faculty. The degree of Doctor of Philosophy will only be conferred upon candidates, who, after taking a degree, have pursued a three years course of liberal study at some college or university, approved by the Faculty, and two at least of these years must be spent at Bryn Mawr. The degree is intended to represent the implied amount of study, and will never be conferred as an honorary degree.

It is desired to give all possible facilities to graduate students. They will receive the personal attention and direction of the instructors, and will be assisted in pursuing their investigations. Graduate courses are offered in Sanskrit, Greek, English, French, Mathematics, Chemistry and both branches of Biology. It is intended to make the Library especially useful to Fellows and graduate students. It is at present only the nucleus of a collection, containing not much above 4,000 volumes; but it is proposed to spend each year $3,000 upon the purchase of books for the Library, so that in a short time with careful selection of books in reference to the immediate needs of the students, the Library will offer valuable assistance, especially to those interested in early texts, and the philological aspect of Literature. The Library is open from 8 A. M. to 10 P. M. It is catalogued upon the "Dewey" system, the aim of which, by careful subject cataloguing, is to bring before the student in accessible form all that the Library contains, bearing upon the subject of investigation. The Philadelphia Library and the Mercantile Library will always be open to the students for consultation, and the Academy of Natural Sciences has kindly offered the use of its Library to the students of Bryn Mawr College.

A BRIEF LIST OF GENERAL READINGS ON THE HISTORY OF THE UNITED STATES.

(1492–1885.)

PROF. ALBERT BUSHNELL HART, HARVARD UNIVERSITY.

Students are recommended, under each period, to read one group of the following references. It is expected that the books mentioned in the group chosen will all be used, and will be read in the order in which they are set down. Students are urged to chose as great a variety of authors as possible. The groups under each period are arranged in the order of preference.

INTRODUCTORY. (6 LECTURES).

1. Doyle's History of the United States, 1–20; Draper's History of the Civil War in America, I. 17–62; Higginson's Young Folks' History of the United States, 1–54. [120 pp.]

1606–1750. I. COLONIZATION (4 LECTURES).

1. Doyle's History of the United States, 21–201. [180 pp.]
2. Lodge's Short History of the North American Colonies 41–92, 406–475. [120 pp.]
3. Story's Commentaries on the Constitution, §§ 1–197. [180 pp.]
4. Johnston's History of the United States, 11–67; Draper's History of the Civil War in America, I. 126–210, 1242–252. [150 pp.]
5. Tucker's History of the United States, I. 21-69; Higginson's Larger History of the United States, 137-215. [125 pp.]
6. Scudder's History of the United States, 65-127; Higginson's Young Folks' History of the United States, 55-150. [155 pp.]
7. Gilman's History of the American People, 80-216. [135 pp.]

1750-1789. II. REVOLUTION (4 LECTURES.)

For all. Johnston's American Politics, 1-17.

1. Johnston's History of the United States, 68-147; Von Holst's Constitutional History of the United States, I. 1-63. [140 pp.]
2. Story's Commentaries on the Constitution, §§ 198-372. [160 pp.]
3. Doyle's History of the United States, 202-289; Draper's History of the Civil War in America, I. 253-291. [125 pp.]
4. Schouler's History of the United States, I. 1-70; Higginson's Larger History of the United States, 216-332. [185 pp.]

5. Lodge's Short History of the North American Colonies, 476-521; Lodge's Life of Hamilton, 1-83. [130 pp.]
6. Hosmer's Life of Samuel Adams, 31-350. [320 pp.]
7. Morse's Life of John Adams, 50-240. [190 pp.]
8. Gilman's History of the American People, 216-351. [135 pp.]

1789–1829. III. FEDERATION (12 LECTURES.)

For all. Johnston's American Politics, 18-101; Von Holst's Constitutional History of the United States, I. 64-181. [200 pp.]

1. Morse's Life of Jefferson, 209-320; Higginson's Larger History of the United States, 333-430. [210 pp.]
2. Gay's Life of Madison, 128–251; Morse's Life of John Quincy Adams, 25–98; Von Holst's Life of Calhoun, 12–83. [265 pp.]
3. Morse's Life of Jefferson, 98–208; Gay's Life of Madison, 252–332; Morse's Life of John Quincy Adams, 98–220. [310 pp.]
4. Stevens' Life of Gallatin, 58–175; Von Holst's Constitutional History of the United States, I. 181–272; Gilman's Life of Monroe, 125–175. [255 pp.]
5. Lodge's Life of Hamilton, 84–284; Morse's Life of John Quincy Adams, 25–98; Bryant and Gay's History of the United States, IV. 242–291. [325 pp.]
6. Von Holst's Constitutional History of the United States, I. 182–458. [275 pp.]
7. Schouler's History of the United States, I. 70–501, II, 1–463, III. 1–450. [1350 pp.]
8. Hildreth's History of the United States, IV. 25–704, V. 24–686, VI. 25–713. [2020 pp.]
9. Tucker's History of the United States, I. 384–627, II. 21–515, III. 21–515. [1230 pp.]

1829–1861. IV. SLAVERY (12 LECTURES).

For all. Johnston's American Politics, 102–185; Von Holst's Life of Calhoun, 124–183; Von Holst's Constitutional History of the United States, III. 563–597. [180 pp.]

1. Greeley's American Conflict. I. 85–309; Davis' Rise and Fall of the Confederate Government, I. 1–85. [310 pp.]
2. Bryant and Gay's History of the United States, IV. 282–446; Roosevelt's Life of Benton, 69–340. [335 pp.]
3. Draper's History of the Civil War in America, I. 301–338, 388–567; Lodge's Life of Webster, 171–332. [375 pp.]
4. Bryant and Gay's History of the United States, IV. 282–446; Davis' Rise and Fall of the Confederate Government, I. 1–85, [250 pp.]

5. Von Holst's Constitutional History of the United States, I. 459–505, II. 1–714, III. 1–597, IV. 1–461, V. 1–490. [2320 pp.]
6. Wilson's Rise and Fall of the Slave Power in America, I. 165–651, II. 1–672, III. 1–108. [1270 pp.]

1861–1885. V. UNION (6 LECTURES).

For all. Johnston's American Politics, 186–247; Lalor's Cyclopaedia, III. 532–556. [85 pp.]
1. Johnston's History of the United States, 297–412. [115 pp.]
2. Stanwood's Presidential Election, 236–374. [140 pp.]
3. Gilman's History of the American People, 501–598. [99 pp.]

THE MATHEMATICAL SCHOLARSHIPS AT CORNELL UNIVERSITY.

Every year nine scholarships are given to persons entering the Freshman class at Cornell University, each of them worth two hundred dollars a year, and good, upon certain conditions, for four years. Who shall receive these great prizes is determined by competitive examinations, and the number of competitors is ten-fold the number of winners. Three of them are awarded, usually, for excellence in Latin and Greek, and six of them for excellence in mathematics.

The general effect of this system of scholarships, has been to bring to the University a body of enthusiastic young scholars who delight in hard work, and who set a high standard of excellence for their associates. In every instance the holders of the mathematical scholarships have proved themselves thoughtful and thorough; and the whole tone of the department of mathematics has been raised by their presence.

The names of the schools where the winners are prepared for the University are published every year in the University Register, together with the names of their teachers. It is certainly a very high honor to both school and teacher.

HOW TO PREPARE FOR THE EXAMINATIONS.

Some weeks ago a bright young lady, a teacher of mathematics in one of our high schools, came to the writer for advice. She had two pupils, young men, who would go to Cornell in the fall—one of them showed great ability and was a promising candidate for a mathematical scholarship, and she wished me to lay out his work, so that he might use his time to the best advantage, and make the best possible preparation.

I was very glad to do this and marked out a course of study for him. Such requests, either from teachers or pupils, are very frequent. Indeed their frequency suggests the writing of this article.

But what was said to this young lady in detail is already well said in general terms in the *Register* of the University under the title of *Entrance Examinations*, a statement that teachers will do well to consult. The substance of it all is that young men and women should be TRAINED TO THINK; and the examination papers are so made out as to distinguish between the thinkers and the non-thinkers. They should be trained to a ready and effective use of their knowledge.

COACHING.

The best tutors train their men with the same care as a race-horse is trained, or a boat crew. It is of little use for a man to go into these great examinations without training; it is a waste of time and strength, and almost hopeless, for one to attempt his own training. At the English Universities "coaching" for examinations has become almost a profession in itself, and as an art it has been carried to a very high degree of perfection.

The examinations are each three hours long and they are conducted in writing. A man must be trained, therefore, to think with his pen in his hand, and to use his utmost strength for three hours. There are three subjects—arithmetic, plane geometry, and elementary algebra, and three papers are set, one for each subject. Generally there are twelve questions upon each paper. It seems a small matter, but it is really a very important one—a man must learn to let alone what he cannot do, and give his whole time to what he can do readily; and it is only practice that can teach him this simple lesson. He must be free from the nervousness that unmans him, and keep only so much of it as quickens his pulse and drives him to his utmost endeavor; and only the nerves of a veteran are equal to this strain.

It is assumed that the pupil has a fair knowledge of the three subjects examined in when he goes into training; the tutor's object is to supplement this knowledge, broaden it, deepen it, make it more accurate and more available.

A good share of the training may be by means of written drill examinations, given at short intervals, every day perhaps, and covering work previously assigned. The next day the tutor goes carefully over the answers with the pupil, points out errors and defects, suggests better methods, and emphasizes important principles.

There is no better way to learn to do a thing than to do it; and no better way to make one's knowledge broad, accurate and available than to make careful preparation and then to write down what one knows, with a wide-awake critic to point out what he does not know, and that wherein he is misled by a vague half-knowledge, following it up by a sharp cross-examination, pupil and tutor face to face.

THE WORK TO BE DONE.

These examinations are competitive; the candidates far outnumber the scholarships to be awarded, and the best men (and women) win. They take a wider range than the ordinary pass examinations, and the tutor must lead his pupil out of the beaten track.

In detail: let the pupil solve a great many difficult examples in arithmetic, of all sorts; and when he has solved one, let him go carefully over his work and state the reason of every step. Let him not rely upon answers given in the text-book, but learn to test his work himself. Let him practice upon these examples, doing the same thing again and again, till he acquires the habit of quickness and accuracy. Tired examiners have little patience with blunderers or slatterns. A model answer is one that says all that ought to be said, and says it in the right order, but adds not one superfluous word. Let the pupil learn to write a clean and clear manuscript, and to put his work in forms that can be understood at a glance. He may use abreviations if clear and well chosen; but much depends on perspicuity and neatness of arrangement, both in statements and in computations.

Besides solving examples, the pupil must look sharply to the definitions, so that he can clearly distinguish between things that are nearly alike. If in his arithmetical work he can make available his knowledge of algebra, so much the better.

The general suggestions regarding arithmetic apply equally to geometry and algebra; but in geometry a special weakness is shown in the matter of original proofs, and in algebra in that of the statement and proof of the general principles.

In geometry the pupil generally does the book-work well; but if he be asked to invent proofs, *i. e.* to think, he breaks down. In this matter of invention there are two kinds of work, very different in character, but both of a high order. The first is the finding of the key to the puzzle, the invention proper; the other is the working out of the logical proof. A bright boy, well guided, takes great delight in this kind of exercise—he likes discovery, he likes independent research, he likes conquest, and with every success he scores one more victory. In mental stature and strength a boy grows fast while at this work, and if he would win at the examinations, he must do a great deal of it. One of the winners last year made more than eight hundred such proofs.

A variety of this work, very useful, is the anticipation of an author's proof, and a subsequent critical comparison by the pupil of his own with that of the author.

There is another thing, generally neglected, that the boy will delight in—the drawing of the figures with rule and compass, accurately and neatly, and according to geometric principles. It is very different from invention, and less difficult, but almost as important. In the drawing he uses his geometry, and by using it, he lives in it and makes it a part of himself, always available.

And still another thing of great profit is the habit of running back, step by step, from this proposition to those on which this depends, and so back, back, to the primary definitions and axioms.

As above noted, the special weakness in algebra is in the statement and proof of the broad underlying principles. Proficiency in solving problems, even difficult ones, is quite common, and the training got from it is very valuable; but of the philosophy of algebra, most pupils know little—they think of algebra as a collection of problems; *e. g.*, if they find the highest common measure of two numbers, they can rarely state and prove the theorems on which their rules depend; or if they solve a quadratic equation, they cannot give an intelligent discussion of such equations, or show what results follow from particular conditions; or even if a definition be called for they can make it neither precise nor comprehensive.

Again, many of the operations of elementary algebra, quite within the comprehension of the dullest boy, seem to be wholly neglected; *e. g.*, synthetic division, cross multiplication and the use of detached co-efficients. The tutor must give his pupils a steady drill in algebraic operations, and he must lead them to a careful study of algebraic principles. Algebra is the most important subject in the whole range of mathematics; and this is work that is entirely within the power of any good teacher; it is work that must be done by every man that hopes to win one of these great prizes; it is work that is done by all that do win them.

THE EDUCATIONAL VALUE OF THE STUDY OF FRENCH IN HIGH SCHOOLS.

DR. ALPHONSE N. VAN DAELL, DIRECTOR OF MODERN LANGUAGES IN THE BOSTON HIGH SCHOOLS.

I know full well that specialists, extolling the great advantages of their own chosen field, are often listened to with distrust, and that even if their eloquence should carry the day, sober after-thought will greatly weaken the force of their arguments. Indeed each special study has its undeniable merit, each special study would claim a place in a complete education, if such a thing were possible, and it is utter folly to belittle the value of any study. Mathematics, sciences both theoretical and practical, fine arts, languages, have each enough in themselves to deserve the love of all, and each one of them has formed men who have conferred never-to-be-forgotten benefits on mankind. It is not enough, therefore, to prove that knowledge of a subject is valuable to have it admitted in the curriculum of a school.

The day is far gone in which scholars could offer to dispute "*de omni re scibili et de quibusdam aliis*". I do not mean to say that people nowadays never speak of what they do not know, but that science has gained so much ground that no human eye can any longer survey its domain. And the most gifted of our race stand as on an observatory beholding the splendor of a few constellations, but knowing that the faintest rays, which they can barely perceive, belong to other groups of stars probably not less brilliant than the objects of their admiration We must choose among things knowable, and however reluctant, turn aside from many. If this be true of man, how much more so of the child.

Besides, the end of education is not to give the knowledge of everything, not even the largest attainable quantity of knowledge, and much less to teach a little of everything. Comenius has long ago given us a higher idea of our calling. "The aim," he says, "is to train generally all who are born men with all which is human."

Now, of all things human, language is perhaps the most necessary, because it is by translation into language that our own perceptions become clear and distinct, because by language we communicate our impressions to others and receive from them the fruit of their experience. It is language that binds us more effectually both to the past and the present, to our family, to our country, to mankind at large. It is only through language that the door of other knowledge is open to us at all, and experience will fully sustain the proposition that good use of language singularly promotes clearness of thought. Of course the mother tongue supplies all essential needs, and ought to occupy a large and commanding place which, unfortunately, is often begrudged and limited. It is not for me to call your attention to all possibilites in this direction, but there is one remedy which comes directly to my province. The study of at least one other language is almost a necessity if we wish to gain insight into the expressions that we have been using since childhood. You surely have often noticed the use of words which were not understood by the person speaking or writing them. My experience convinces me not only that comparatively few persons are able to give a correct definition of the use of words that constant repetition has not rendered familiar, but that it is in many cases difficult to find a few words of which they show any approach to a real apprehension of the meaning. And do not believe that the word is probably understood and it is only the utterance of thought that is somewhat difficult. Of course, timidity may close knowing lips, but, as a rule, absence of thought is covered with words. The best remedy to counteract this far-spread evil is a carefully guided exercise in translation from another language into your own. I shall tell you farther on why French is, in my opinion, for English speaking people, the most valuable material to be thus used.

Much of that which I am about to say will apply to more or less extent to the study of other languages, but I thought that I should speak better of that which I know and love best—my mother tongue. At the same time, I shall take care, if possible, that love shall not blind me, and shall try to give you what an already long practice of teaching has taught me.

I intend now to state as briefly as possible why French should be studied by the American children of our high schools, and why the study has not brought forth all the fruits it ought to have borne. Here I must ask your indulgence. I shall have to criticise, and intend to speak the whole truth. But I beg you to accept my words, not as derogatory to any efforts which have been made so far, but as a strong proof of the love I feel for the land that has kindly received me. One of our great writers, speaking of the love we ought to have for our native country, says that the strongest proof we can give of our affection, is that we should do all in our power to make her pure and noble, to fight evil and ignorance, and to correct whatever is wrong and to better whatever we can. This is the feeling of which I have carried a due share to America.

1. French ought to be studied in the high schools, because French literature has been the first in order of time of all modern literatures, over which it has exerted an undeniable influence. I know that it is somewhat of a habit to speak lightly of French authors; I have no time to expound the glories of our literature, and if I gave my criticisms you might possibly think me partial But listen to a few quotations from well balanced minds, who can not be thought to be prejudiced.

Mrs. Browning begins thus the sixth book of Aurora Leigh:

> The English have a scornful insular way
> Of calling the French light. The levity
> Is in the judgment only, which yet stands;
> For, say a foolish thing but oft enough,
> (And here's the secret of a hundred creeds,
> Men get opinions as boys learn to spell,
> By reiteration chiefly) the same thing
> Shall pass at last for absolutely wise,
> And not with fools exclusively.

But as you might, perhaps, think Mrs. Browning rash in her judgment, let me recall to you a few lines from one of England's greatest thinkers, whom no one would ever dream of accusing of poetical exaggeration. John Stuart Mill, in the second volume, page 199, of his "Dissertations and Discussions," speaking of our historians, says: "What reason induces the educated part of our countrymen to ignore, in so determined a manner, the more solid productions of the most active national mind in Europe, and to limit their French readings to M. de Balzac and M. Eugene Sue, there would be some difficulty in precisely determining; perhaps it is the ancient dread of French infidelity; perhaps the ancient contempt of French frivolity and superficiality. If it be the former, we can assure them that there is no longer any ground for such a feeling; if the latter, we must be permitted to doubt that there ever was. With respect to the charge so often made against French historians of superficiality and want of research, it is a strange accusation against the country which has produced the Benedictines." And on page 214: "A person must need instruction in history very much, who does not know that the history of civilization in France *is* that of civilization in Europe."

You have probably read in Goethe's conversations with Eckermann what the great German thought of French literature and how severely he berates Schlegel for his lack of judgment and sound reason, (vol. 3, pages 92, 93 and passim.)

I might quote many others, but time is wanting, and especially in the matter of criticism, I believe that quality is better than quantity. But "French books are not fit for the class-room." True, some French books are not, but what compels us to chose those ? and, by a strange perversity, it is especially the base and low that are scattered abroad. A few years ago an American gentleman, whom I have the honor of numbering among my friends, asked me to give him a list of French books for his daughter, a bright and attractive young lady. I complied with his desire. When he read the first name I had written down, he looked at me in utter amazement and asked: Are those the books that you would give my daughter ? I answered: Certainly. Have you read them ? No, but I know the author ! On close inquiry I found that of the one hundred and some odd volumes composing the works of this writer, he only knew the five or six which ought not to be known.

2. French ought to be studied because the language in itself is beautiful, clear and precise, and wonderfully plastic, capable of following thought into its innermost recesses. Down from Dante's master, Brunetto Latini, who chose it because it was the most delectable, harmonious and pleasing, to our own times, it would not be difficult to prove what fascination French has exercised over the loftiest and noblest minds. And perhaps it is because both good qualities and defects in our language and literature are so widely different from the Saxon that it is doubly profitable. Upon this point I do not insist. Yet one final remark: French has since time immemorial been a tie between educated persons of different nationalities, a kind of anticipated Volapuk.

3. French ought to be studied because it is one of the constitutive elements of the English language and, I firmly believe, one of which the value has been underrated. I do not think that Saxon ought not to be the broad foundation of the English tongue, nor that you ought to make a more extensive use of the Latin elements. Far from me such a thought. But I merely state as a fact that a large quantity of words of undoubted usage in English have common elements with the French. I have taken at haphazard, five pages of Murray's dictionary (220–224) and found the total number of words treated is one hundred and twenty-one; of which more than two-thirds have elements common to French and to English. I know that the proportion will be less in other parts of the dictionary, but I might also find many pages where every word carries on its face some mark of Latin or French influence.

Therefore I claim that French offers elements as favorable for mental development and discipline as any other study. Why then has this not been recognized? Only because teachers have not known how to use the instrument which was at hand. It is not necessary to state here what share of the blame Frenchmen ought to take; very few, if any, are here present, besides myself, and I do not feel inclined to make a public confession of my own misdemeanors and failures. I must then turn to the American teachers and examine with them why their success in teaching French has not generally come up to a desirable standard.

Beginning my fault-finding with principals (in French, we say, à tout seigneur tout honneur). I have sometimes seen teachers so overburdened with a variety of work that preparation was out of question; then sometimes they consider French as an out of the way study, good enough to fill some hours, or to help make a respectable showing, a study from which time may be taken to give it to some more necessary study. The last I have seen even here in Boston. But I cannot refrain from saying that I believe this treatment to be morally wrong. If your pupils are overburdened, lighten their task by taking away some study; take away French, but do not let a class ever think that you attach less importance to a lesson because it is a French lesson, nor make a practice of excusing them from French to give their time elsewhere, as long as they remain in a French Course. Children are quick at drawing inferences.

Another not infrequent cause of failure in languages is the uncertainty of tasks being assigned. How could a principal expect a teacher seriously to engage in the study of a subject which may be at the end of the school year or perhaps at the end of a quarter assigned to another one.

As far as teachers themselves are concerned, the most conspicuous and usual causes of failure are deficiency in general preparation and wrong methods in teaching, the latter being often a necessary consequence of the former.

Some years ago, while teaching in a school far from Boston, I knew of a teacher of mathematics who was instructing a large class in Geometry and Algebra, and was only three or four propositions ahead of her pupils in Geometry and a few pages in her Algebra. It needs no great mental effort to know with what result. The lady I refer to came one day in great distress to my room asking me whether I would not help her to solve an equation over which she had been working two days. I saw at once where the shoe pinched, but if she had known the theory of general equations of the first degree, she would not have been puzzled. This, I trust, is a very rare case in mathematics, in sciences, in everything in fact except in modern languages. The theory seems to prevail that if a teacher knows enough to translate the passages designed for class use it is quite sufficient. If the teacher translates or reads common prose passages at sight, he is considered quite a scholar. Is it necessary to point out to you the fallacy of the proposition? To be sure, American teachers can teach French, on one condition, that they know the language. And by knowing I mean a good deal more than the necessary quantity for common class use. A teacher who does not know thoroughly French grammar, (and by this I do not mean most of the little class manuals that assume this ambitious title), who is not acquainted with the best of our literature, who does not know our history, both moral and political, cannot successfully inspire his class with the force and enthusiasm that lead to knowledge.

Now as to methods. And here I utterly disclaim any narrow views. But methods are roads that must not take us away from our end; and the study of languages in high schools or preparatory schools can have only four ends, namely: read, understand, write, speak. I do not mention grammar, for which I profess much love, and which has for me a strong attraction, but I am not speaking of a higher or collegiate course, but of one in a preparatory school. Misunderstandings have often occurred on this subject which careful statements would have prevented. Most of the so-called school grammars only take away time that might much more profitably be spent in studying the language. But discipline! What a fine word and how much it is abused! Let us look a little closer into the matter. What is discipline? I hold it to be the result of mastery of one subject, which enables us to grasp more easily similar subjects or which enables us generally to make a better use of our reasoning faculties. Is there discipline in the recitation of a set of rules? Is there discipline in turning the leaves of a vocabulary and accepting the first meaning, sometimes the only meaning of a given word? I shall leave you to answer. But how far better the pupils might be trained if we made them read good authors, recognize the similitudes of words, call their attention to the value of prefixes and suffixes, or better still, let them discover them by themselves? How far better even to train their ears to the new sounds and confer on them a practical benefit in many cases, and in all others, give them a basis for real work? Michel Bréal, in a speech published by the Revue Internationale de l'enseignement asks that three years be given in French Lycées to the training of the ear. The president of the German Association makes a similar request and I might tell you that the same ideas were expressed years ago in this city of Boston, and have since been applied by some throughout the United States. Common sense in methods requires us to teach practically, which means that we ought to begin with objects, never separating words from ideas. We must then be constructive and inductive if we wish to progress, constantly enlarging the circle by association of ideas. A few months ago I was reading the second annual report of the superintendent of public schools, dated 1882, and signed Edwin P. Seaver. And I then wished that the very principles there exposed in a masterly way might one day be applied with the same success to the study of French. I only ask for a few more minutes. Let me say a few words about text-books. Many teachers go directly from the readers to the highest classics. The readers generally in use contain a kind of literary hash (with very little meat in it) that is hardly palatable. It seems to me that a bright story, or, if you wish, a collection of stories, or a history, would be far more interesting and less difficult than the wretched jokes often written in poor language, which are now accepted. As to the classics I would reserve them for college, or for the upper class, when the pupils are able to read fluently, when their minds, are more mature and more apt to perceive a beauty so different from their own standard.

I shall not end these remarks without adding that if I have had occasion to notice defects, I have also found among the teachers, which it has been my good fortune to meet, sound scholarship, talent and with almost every one of them a conscientiousness and a devotion to duty so strong, a desire for knowledge so sincere, that these sterling qualities ought soon to overcome whatever may have been wanting in the past.

THE PRINCIPAL PARTS OF FRENCH VERBS.

BY C. SPANHOOFD, ST. PAUL'S SCHOOL, CONCORD, N. H.

The principal parts of the French verbs as they are given in most of our grammars, *tenir*, *tenant*, *tenu*, *je tiens*, *je tins*, seem to me quite inadequate as a device to facilitate the derivation of the other tenses. I do not know who first hit upon these five forms, and why they are so tenaciously adhered to. There certainly is no scientific reason for picking out just these, and from the point of view of facilitating the study of the verb so difficult to the beginner, they have to be complemented by too many explanations and exceptions, to be quite satisfactory. In the first place, the present subjunctive can be derived from the present participle only in the regular conjugations; for the verbs in *oir* and almost all the irregular verbs this rule of derivation does not obtain. And on the other hand, is it enough to know the first person singular of the present tense? In the preterit that one person will do, but with regard to the present, it is certainly impossible to derive all persons of the imperative, unless the forms of the plural are known also. Now if other forms of the present besides the first person singular are needed for derivation, why not count them among the principal parts? Bernhard Schmitz advocates this plan both in his grammars and his *Encyclopædie der neueren Sprachen.* He also leaves out the present participle from among the number. I have followed his example in both respects for some years, and adopted the following principal parts: *craindre, craint, je craignis, je crains, tu crains, il craint, nous craignons, vous craignez, ils craignent.* It may seem unnecessary always to give all the persons of the present, but if one takes into consideration such presents as *je nais, tu nas, il na*, and *nous faisons, vous faites, ils font*, where every person has a different form, one will grant, that it is best to include as a rule the whole tense. In that case there will be no necessity of stating exceptions, and, besides, the pupils will find it much easier to learn the whole tense than only certain persons of it. There is also an advantage in having the past participle and the preterit follow each other immediately instead of separating them by the present, as is done in the usual order of the principal parts, because it calls attention to the fact that these two forms are so often alike, *e. g., couru, je courus*; *mis, je mis.*

Now as to the derivation of the other tenses from these principal parts. I form the future and the present conditional from the infinitive. The past participle serves to form the compound tenses, the preterit, the imperfect subjunctive. So far I do not differ from any of our grammars. From the present however I derive (1) the imperative in the usual way; (2), the imperfect, (3), the present participle, both from the stem of the first person plural; and (4,) the present subjunctive by dropping *nt* from the third person plural. Otto's grammar suggests this latter formation without however laying the necessary stress on it in the treatment of the irregular verbs.

Thus we get the following synopsis of principal and derived tenses:

I. recevoir	I. savoir
1. je recevrai	1. *je saurai*
2. je recevrais	2. *je saurais*

II.	reçu		II.	su	
	compound tenses				
III.	je reçus		III.	je sus	
	que je reçusse			que je susse	
IV.	je reçois	nous recevons	IV.	je sais	nous savons
	tu reçois	vous recevez		tu sais	vous savez
	il reçois	ils reçoivent		il sait	ils savent
	1. reçoit, recevoiss, recevez			1. *sache*, *sachons*, *sachez*	
	2. recevant			2. *sachant*	
	3. je recevais			3. je savais	
	4. que je reçoive			4. *que je sache*	

In teaching the irregular verbs I make my pupils write out such a synopsis of every verb and by requiring them to underscore all irregular forms as has been indicated above in the verb *savoir* I constantly call their attention to what is most important to be remembered about any of these verbs.

I give them a list of the verbs in which all tenses are derived according to rule, *écrire*, *craindre*, *dormir etc*, then a list of the irregular futures and conditionals.

With regard to the present tense, which has to be taught very carefully, I tell them that generally the three persons of the plural have the same stem, that only two verbs, *faire* and *dire* have a second person plural which differs, and that the third person plural differs only in *aller*, *acquérir*, *mourir*, *etc.*

It is well to call their attention to the fact that the plural of the present tense, the imperfect and the present participle are made of the same stem, only *savoir* making an exception in *sachant* with *savant* as adjective and noun.

The imperative is irregular only in *savoir* and *vouloir*.

The present subjunctive makes the most trouble, less however if derived from the third person plural of the present than from the present participle. One has to keep in mind that the first and second persons plural of the subjunctive have the same stem as the corresponding persons of the indicative. This rule is important for the verbs in which the third person plural differs from the first and second, as in *recevoir*, *boire*, *etc.*, and holds good even in the verbs *aller*, *valoir* and *vouloir*, though these have quite irregular subjunctives. The only exceptions to it are the verbs *pouvoir*, *sauvoir*, *faire*, as might be supposed from their irregular formation. These last six verbs are the only ones, which cannot derive their present subjunctive from the third person plural of the present indicative. No better reason could be adduced in favor of adopting this derivation.

I have thought that this method of teaching the French verbs might be of interest to teachers of French. There may not be anything new in it to a great many of them, but this subject presents so many difficulties to both teachers and learners, that a discussion of different methods of teaching it must always prove fruitful.

THE SCIENCE AND THE ART OF GEOGRAPHY.

BY C. H. THURBER, ITHACA, N. Y.

A paper has been recently established in England, which has for its object to combat the pernicious doctrine of Columbus and Sir Isaac Newton that the earth is round, and finally to overthrow them completely and introduce a new and true doctrine as to the shape of our planet. While it may perhaps be questioned whether the field for this enterprising journal is very large, yet there is some reason for supposing that any well-directed efforts towards exciting an interest in the shape and general character of the body upon which and from which all exist, would not be without some benefit and importance. The fact seems to be that the science and the art of geography hardly receives the attention to which it is entitled. In the three R's of olden times it found no place, and while it has secured recognition in the curriculum of modern schools, its foothold is more or less precarious. The scholar takes it up before he is prepared to understand its importance, or to appreciate its fascinations. He soon lays it down again and rubs it up a little only to pass a perfunctory examination for admission to college. Once in college, except for some spasmodic effort on the part of a professor in history, or perhaps of geology, he, as a rule, never hears again of geography as entitled to a place among those sciences of which every well-educated man should have a knowledge. We believe this is true to a great extent in American colleges and universities. In Europe, no university worthy of the name is without its chair of geography, and some of the most famous lecturers, whose classrooms are crowded with eager students far and near, devote themselves entirely to this subject. It is there esteemed as it ought to be. But there is much to be done before it receives the attention it deserves at the hands of our own institutions of higher learning.

This want, though far from being supplied, is beginning to be widely felt. Frequently the comment is heard from professors of history, that they find great difficulty in attaining the results that they ought to attain with their classes on account of their almost total ignorance of political geography. The lecturer on history, by the aid of properly constructed charts, can; under the most favorable of circumstances, do not a little to overcome this defect. But with the amount of work which it is generally necessary for a university class in history to cover, with the time at the disposal of the instructor, and especially with the appliances generally at his command, not much can be accomplished in this direction. And so it is a common complaint that students are held back in their higher studies by a lack of proper preparation of this sort.

Nor is it in history alone that a thorough acquaintance with geography is of importance. For a proper understanding and appreciation of the principles of modern science, particularly geology, botany and zoölogy, a certain knowledge of geography is absolutely necessary. If the student has this knowledge thoroughly fixed when he approaches these subjects, he has an immeasurable advantage over his fellow to whom every geographical allusion is only made clear by the thumbing of an atlas or the consultation of an encyclopedia.

Three points thus seem clear: first, that of all preparatory studies, geography is one of the most important; second, that a somewhat general feeling exists that a large number of students who enter college are not thoroughly grounded in this subject; and third, that no adequate instruction in geography is provided for in American universities. It seems, therefore, that we must look to the secondary schools to put this matter on a better footing. It may, indeed, be urged that the colleges and universities themselves should establish chairs of geography, and in the main there does seem no reason why they should not. But while such professorships of geography would be of great use, not only in equipping students for business life, but also in properly qualifying and properly interesting teachers, yet such foundation work as the student needs for his studies in history and in science must be laid before the student reaches college, and not after.

The question as to how this can best be accomplished is not one to be answered in a few words, but certain suggestions present themselves which may not be without value. To most people who have passed their teens, a geography may fairly be said to be one of the most interesting of books; there is no reason why it should not be so to those who have not yet passed that mystic boundary. Yet the mere learning by rote of the capitals of all the countries and the heights of all the mountains, is not likely to kindle any very lively enthusiasm. To interest older classes the study of geography could be profitably combined to a greater extent than it is with the study of history. If, in the study of the history of the United States and of England, and even of Greece and Rome, somewhat less attention were paid to the acquirement of useless dates, and more to a careful tracing on the map of the steps by which these great empires of the ancient and of the modern world added to their territory and extended their boundaries,—if the teacher took pains to make clear how the physical environment affected the development of the nations,—if the historical importance of a great river, or a mighty mountain range, were made more prominent, the enjoyment and the profit to the student would be vastly increased. Take the Mississippi river, for example; why is it so often spoken of in our history? What is its importance? Why should so many of the tales of the early explorers and the stories of early pioneers center about this river? What makes a great river of importance to civilization? In answering these questions the student would be brought into contact with the elements of the philosophy of history, and would in spite of himself be lifted into a higher scholarly atmosphere.

Doubtless it may be said that in the crowded curriculum of the high schools and academies, no adequate place could be found for the study of geography by the higher classes. Doubtless this is true, if it were necessary, or even desirable, that the student should take up geography as he takes up his algebra or his geometry, and make it one of his severe daily tasks. But, in order to stimulate such an interest in the subject as will keep the scholar's knowledge fresh and lead him to add to it imperceptibly the facts that will be of most importance to him, we do not think this is necessary. By a judicious combination of geography with history, and by an exercise, weekly, perhaps, devoted to a discussion of the events of the day; as, for example, calling upon the student to inform himself upon the geographical features of southeastern Europe, at the time that the Bulgarian question was before the public mind; or the topography of Central America when the canal question is under discussion, such an interest will be kept alive and such knowledge acquired as will insure the student's going to his college work, bright, instead of rusty.

THE ECONOMY OF YOUTHFUL STRENGTH.

In his *Aphorismen zur Lebensweisheit* Schopenhauer thus expresses himself on the subject of the *Economy of Youthful Strength.*

"Aristotle remarks that of the victors in the Olympic games there were only two or three who, having won as boys, won again in manhood, because by the exertions demanded by the early training the powers are so exhausted that in mature life they no longer suffice. As this is true of muscular force, still more does it apply to nervous energy, in the expenditure of which all intellectual activity consists. Hence precocious youth, prodigies, fruits of hot-house forcing, who as boys excite astonishment, afterwards turn out very commonplace persons. The over-exertion to which boys are forced in learning the ancient languages may even be responsible for the subsequent lack of mental stamina and the practical incapacity of so many learned heads."

Schopenhauer's suggestion opens up a theme for discussion of the very first importance. That overtraining of the physical powers is possible and needs to be guarded against is generally recognized. But we do not so readily surmise the danger of too intense application of the intellect in early youth. All the machinery of modern education tends to crowd more and more work upon the pupil and to increase the stimulus and the tension of care under which he labors at his tasks. Supervision often sees no other way in which to supervise but to spur on teachers to a greater strain of effort and through the teachers, by means of examinations, to react on the pupils by setting up motives of fear and dread with regard to coming tests for promotion.

It is possible that even while pupils seem to thrive and succeed as pupils, they are drawing upon their capital of vital energy and are dooming themselves to mediocrity and feebleness in facing the competitions of mature life. Perhaps, although no manifest breaking-down ever hints to parents or teachers that disaster is impending, a slow process of undermining may be going on that will never reveal itself in marked changes of mental power, but will nevertheless determine a lower degree of the masterly elements of character as the destiny of the individual.

These are of course conjectures. Observations of many instances would seem to be needed to confirm Schopenhauer's apprehensions or to prove them groundless. But the observations needed are difficult, if not impossible, to make. We can only fall back upon the prevalent opinion that men of first-class scholarship in school and college are apt to fall into obscurity and *not* to become the leaders of their generation. It is a common belief that the scholarly men depend, more than men of a ruder strain, upon being called to something, and lack the power of taking the initiative in great enterprises.

It is a well known fact that the men who are prominent in our large cities, whether in business or in the professions, are, generally, country-born, and not descended from city families. Their early schooling was in the country, and was very defective. The query rises—is their strength due to the scantiness of their education, or is it in spite of this scantiness? The school-master's view is of course the latter. The modern pessimist looks upon it the other way, and makes bold to say that these men are fortunate in the exemption of their youth from the forcing process carried on in the highly systematized, fully equipped and rigidly supervised city schools.

A prime article of the humanistic creed is that study of the classics fits for leadership in human society. Schopenhauer seems not to see that the classical men are the actual leaders. In the artificial social system of Germany they are perforce the magistrates, the physicians, the teachers, being, by law, the sole eligibles to these functions. But do they naturally, by their own weight of character and by the abundance of their human faculty, gravitate towards these places of honor?

But the suggestions of the philosopher touch upon matters too great to be discussed fruitfully without much preliminary clearing of the ground. What constitutes leadership and mastery among men? What constitutes succes? What is practical wisdom, and how is it related to scholarship and knowledge?

Richter humorously opens his *Levana* with two speeches, which he imagines himself as delivering, one showing how much education effects and the other showing how little it accomplishes. Both speeches are true. One is natural to the man who laments his lack of education and imagines himself struggling against his disadvantages, and the other belongs in the mouth of him whose youth was spent among the golden opportunities of a large city and who, conscious of wasted time and lost chances, must find some scapegoat to bear his sins, and finds nothing so convenient as the schools.

THE MASSACHUSETTS ASSOCIATION OF CLASSICAL AND HIGH SCHOOL TEACHERS.

The Massachusetts Association, which held its twentieth anniversary last month, is, we believe, the oldest organization of secondary teachers in the country. It numbers among its members many of the best known teachers in New England. Its constituency extends over a small space of thickly-settled territory, where the railroad facilities are unequalled. The Latin School, where its meetings are held, is one of the historic memories of Boston, and yet we found gathered together a group of gentlemen in number less than half the masters of Boston alone. In fact, the entire attendance of gentlemen was not one-quarter what might have been expected if the secondary teachers within an hour's ride of Boston had all been present. Some enthusiasts had come long distances, but the general attendance gave little indication of enthusiasm or interest in school work. It may be doubted whether the custom of holding meetings in a room too small to accommodate those who do come has a tendency to attract others.

The papers read were of a high order of excellence, better, in fact, than we ever heard before in an educational meeting. The discussions, however, were not deserving of equal praise. Some bright men said bright things, but, as a whole, the discussion was hardly sharp and pointed enough to be of special interest. There were several easy speakers, who found no difficulty in exceeding the specified time limit, and some of whom said their good things over and over.

In its social aspect, the Association was hardly a success. There is often complaint, not without foundation, that many educational meetings are little more than social junketings, and this has not unfrequently brought such meetings into disrepute. Teachers have their serious problems which cannot be reached by simply having a good time, but the play hour has a function no less important in the life of the teacher than in that of the pupil. At this Boston meeting the play ground, if there was one, must have been surrrounded by a high wall which shut out from its recreations many of those in attendance. We know where two delightful evenings were spent in a pleasant round of familiar talk, not less helpful than the formal work of the Association, but we cannot help feeling that as a whole the meeting was hardly social. Hospitality has nowhere a finer flavor than in the staid city of Boston, as we have had more than once abundant occasion to know, but it is rather hospitality of the individual for an individual than the hospitality of the worker for his fellow workers.

Among the many pedagogic questions that are now fairly open, to the discomfort of the routinists, is that of the priority of Latin or French in a course of study. The actual successors of the elder humanists—they are themselves humanists no longer—have taken refuge in pleadings for the ancient languages, first as furnishing an incomparable mental discipline, and, secondly, as supplying a necessary foundation for the acquisition of modern languages. Both these arguments are heretical from the strictly humanistic point of view. But they are the orthodoxy of to-day.

The discussions at the Boston meeting showed a tendency to agree with Prof. Jowett's recommendation that French should come before Latin. If the acquisition of Latin is, *per se*, an ultimate good, then a preliminary study of French will further its attainment. The opposite statement is also true. But it would seem not altogether unwise to put the easier language first. Whatever has to be said to a child may be said in French by persons to the manner born, always accessible and competent. Speaking French involves no pedantry, no theories of pronunciation. It proceeds upon the simplest of all principles—direct imitation. The Latin colloquy will never spread beyond the school-room, and even in the school-room will never acquire the simple, *naif*, unaffected manner. French conversation is an actuality. It has not to be manufactured. It abounds in occasions for genuine courtesy, for *savoir faire*. How any one can listen to the stilted, incredulous, *bouffe* tone into which a Latin colloquy is apt to fall, and maintain that such training should precede French speaking, it is hard to see.

Dr. Van Daell, in urging the educational value of French, maintained that the four elements of linguistic study, hearing and speaking, reading and writing, should go along together. It were to be wished he had insisted on this point still more strongly. A theory has grown up among American teachers of French, who cannot hear and speak very well, that these sides of the study need not receive much attention in school. The ancient languages cannot be heard, because they nowhere come naturally to voice; and they cannot be spoken, for the double reason that they have not the words for what modern men have to say and that they have no pronunciation. Thus what is a necessity of the case with the ancient languages, like many humanistic usages, grows to the proportions of a pedagogic principle and is transferred to the live languages, which speak to us and constantly ask to be spoken.

It is probably wise not to separate the four elements of linguistic discipline. No one can thrive without the others. Pupils will not attain to fluent speech in French; but they will come nearer to it than they do to mastery of Latin reading. And it will surely be feasible to cultivate their ear so far that, being within hearing of French speech, they shall catch its meaning. Unlike Latin, French conversation has not to be made up, and French pronunciation is not factitious. French offers the great opportunity of school life for the training of the ear and the voice.

Dr. Van Daell did not announce his adherence to any method now current under a recognized name. He is known, in his teaching, to follow the principles of which Dr. Sauveur is the chief exponent in this country. Perhaps he would shrink from using the name "natural method," so assuming are the connotations of this term and so much does it expose the method to attack. We observe that the method so designated by Dr. Sauveur is sometimes called the "direct" method; and we would suggest the use of this name as conveying the essential idea of the Marcel principles, which contend that the way to learn a language is to come into contact with the language without the intervention of grammar.

During the discussion following Prof. Hale's paper, Prof. Harkness caused quite a ripple of consternation among his old friends and acquaintances by announcing himself as a hearty advocate of Prof. Hale's theory of sight reading. Indeed, he was inclined to think that Prof. Hale's idea was by no means new, had been practiced at Brown for many years, is in current use in the best schools in the East, and produces the best of results. There is a tradition, well authenticated, it is said, that when a few years ago, at a meeting of teachers in Boston, a well-known headmaster advocated the reading of the Latin words in order, and thus gathering the sense, Prof. Harkness took the opposite side, and maintained that the proper way to read Latin was to find, first, the subject, then the predicate, then the modifiers of each, etc.

Personally we should be disinclined to place great reliance on tradition, even Boston tradition, but in the present case there is strong corroborative evidence in Prof. Harkness's writings. In a Complete Latin Course for the First Year, copyrighted in 1883, in giving directions for reading Latin, Prof. Harkness uses the following words (page 302.

"V. The key to the meaning of any simple sentence will be found in the simple subject and predicate, that is, in the nominative and its verb. Hence, in looking out the sentence, observe the following order. Take,

1. The Subject or Nominative.
2. The Verb, with Predicate Noun or Adjective, if any.
3. The Modifiers of the Subject, i. e., adjectives agreeing with it, nominatives in apposition with it, genitives depending upon it, etc.
4. The Modifiers of the Verb, i.e., (1). oblique cases, accusatives, datives, etc,, depending upon it, and, (2), adverbs qualifying it.

VI. In compound and complex sentences, discover, first the connectives which unite the several members, and then proceed with each member, as with the simple sentence."

Tempora mutantur et nos mutamur in illis.

In the paper of Mr. Gummere on *Poetry in the School-room* the association heard a scholarly and earnest exposition of the significance of poetic form. Evidently not many of Mr. Gummere's audience surmised the vast range of the science of poetics as now cultivated by specialists. But as English literature is taught in all secondary schools, and poetry is read in all grades and made the subject of study and comment in the higher ones, it seems desirable that teachers should have just conceptions of the relations between form and content in literature as the condition of correct taste and properly balanced instruction. Any one acquainted with Mr. Gummere's *Handbook of Poetics* or with any other recent work on metric or style would have found the paper in no way liable to convey an exaggerated impression of the value of poetic form as compared with the thought which the form is adopted to clothe.

After discussion of Mr. Gummere's paper had ended, the President requested Mr. F. A. Hill to inform the Association as to a report which he, as chairman of a committee, was intending to bring before the Commission of Colleges in New England on Admission Examinations. The committee, consisting of Messrs. Hill, Gallagher and Bancroft, was appointed last January by the New England Association of College Officers and Preparatory Teachers. The report, read by Mr. Hill, stated its approval, in general, of the action of the Commission in recommending the reservation of certain subjects for the final examination. It found, however, that the reservation of French does not commend itself to the teachers of Preparatory Schools. The last suggestion of the report was "that, in the English requisitions, the limit, not only in the number and variety of authors and works recommended, but also in the annual changes, has been reached, if not passed. They regret the lack of uniformity that still exists in these requisitions, notwithstanding the fact that many colleges are in accord." Mr. Poland, Secretary of the Commission, asked the members of the Association to express freely their views as to the suggestions of the report, and to make known to the Commission any opinions on the subjects with which it is concerned.

The report was discussed by Messrs. Collar, Tetlow, Bradbury, Goodrich and Parmenter, and by Mlle. Sée, Professor of French at Wellesley College. There was a general agreement as to the requisitions in English. Mr. Collar regarded the present method of examination as necessitating an injurious process of preparation, "destructive of the very purposes which the college teachers have in view, love of English literature." Mr. Bradbury suggested a plan of examination in English composition, in which the papers of pupils written by direction of their teachers should be taken into account. He noticed the absence from the college lists of American books and subjects. It was voted that the recommendations of the committee be accepted as conveying the sense of the Association.

It can hardly be claimed that this is a very ample outcome of the agitation which looks toward bringing about something like uniformity in the conditions of admission to college, or in the entrance examinations themselves. The reservation of French till the final examination for Harvard seems to us open to many objections and surely the teachers were justified in making their protest. It may be also that in the English requisitions the limit has been reached. Certainly it has been passed if it has ceased to promote a love of English literature. These, however, seem to us only minor matters, easy to change without the consultation of representatives from the various colleges and secondary schools. A much more important result would have been the presentation of some plan by means of which the colleges and secondary schools throughout New England could work together without friction or annoyance. Under such a system, properly arranged, pupils could prepare for different colleges side by side in the same class and the temptation to the colleges to lessen their printed requirements, or in individual cases to let in half prepared men would be much decreased. We can but feel that the report of the committe was a disapointment to many. It will have no inconsiderable effect in other parts of the country to discourage those who were looking to New England for a solution of this by no means easy problem.

COMMUNICATIONS.

Editor of THE ACADEMY:

In your March number I find a commendatory notice of *Education*, in which you speak of an article by Mr. Missimer, entitled "*A practical Education. Does it Educate?*" as one of the best papers that has appeared in recent educational literature."

You, however, allude to a brief note of mine in *Common School Education*, upon the type-writer, and say that I "directly oppose the views of Mr. Missimer." Farther on in your editorial I find this sentence: "The creed of many at the present time, and among these we are sorry to see Dr. Mowry and Principal Morgan, is that training to get one's living is one large purpose of education." Either I must have signally failed to express myself clearly, or else you have seriously misinterpreted what I have said upon this subject. Certain I am that oft-repeated utterances of mine, consistently for forty years, since I first became a teacher, have made it clear to those who know me, that my educational doctrine has always and everywhere been the direct opposite of what you here attribute to me. In teachers' institutes for thirty years past, in frequent addresses before the American Institute of Instruction, the National Council and the National Educational Association, as well as elsewhere, I have always insisted that by the true idea education should be considered as an end in itself, rather than as a means of earning one's livelihood.

In an address before the National Council at Topeka, last summer, I used the following language in illustration of the true object of an education: "The principal object is the increase of mental power, the growth of the man, the development of the higher faculties of his nature, the elevation of the human being, the widening of the difference between man and the brute creation."

In the number of *Education* for June, 1886, I discussed the educational advantages of the type-writer in schools at some length, but *not* its industrial benefits. In September another article appeared, in which is this sentence: "It is believed that by no other method will the pupils in our grammar and high schools so quickly and so accurately acquire the art of English composition."

I fully believe that the use of the type-writer in schools will prove of great benefit *educationally*. In reference to the industrial advantage, that is a matter which will take care of itself, but with which educators have but little to do.

I am glad to see THE ACADEMY standing for true psychological and pedagogical philosophy, and I hope it will be able to discern clearly between its friends and its foes. It is my strong purpose, personally, to carry my flag so high that the friends of true education will not fire upon it.

Very sincerely yours,
WILLIAM A. MOWRY,
Editor of Education and Common School Education.

50 Bromfield St.. Boston, Mass.

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

On account of the press of other matter, Interchange is omitted this month. The subject for June will be that announced for this issue:

The legitimate duties of a Principal; or, how can a principal best divide his time between general supervision, class-room visitation, office-work, and class instruction.

Superintendent White, of Cincinnati, merits the approval of every honest teacher for the report recently made by him criticising the method of the Cincinnati board. But it is a sad commentary on the honesty and independence of teachers that usually the favorable comment everywhere made on his action is followed by the reflection "that he can afford to speak his mind freely, for he is not dependent on the board for his living." Can teachers not be honest and independent if it is going to cost them anything?

THE ACADEMY occasionally gets an anonymous letter. We do not find it worth while to read these usually, because, being ourselves willing to sign our name to whatever we write, and assume the whole responsibility for it, we naturally have little sympathy with those who for lack of courage, or other reason are unwilling to sign their articles. Any of our readers may write to the editor of THE ACADEMY in perfect confidence, and in no case will the writer's name be made public without his consent or approval, but in all cases it is necessary that we know whose communication we are reading.

We found the other day in a recent English book the following sentences, which seems to us to suggest an explanation of much of the complaint about over-pressure:

> "Many a fond parent justly fears to 'overdo' the lessons, who is surprisingly blind to the brain-fag that comes from the strain to live at grown-up people's level; and to the nervous exhaustion produced in children no less than in their elders by indulged restlessness, discontent, and craving for fresh excitement, and for want of that sense of power and repose which comes with habitual obedience to righteous rules and regulations. Laws that can be set at naught are among the most demoralizing influences which can curse a nation, and their effects are hardly less disastrous in the nursery."

We have received from Mr. C. W. Bardeen, Syracuse, N. Y., a list of several thousand educational reports, pamphlets, etc., from all over the United States and Europe. Mr. Bardeen well says "that the pedagogy of the future will be largely based on facts to be obtained only from sources like these," and he urges his readers to preserve, or put where they will be preserved, all documents of this kind. The advice is good and timely. The carelessness which has prevailed in regard to matters like this would be incredible if it were not well attested. There are many schools in the United States to-day, that have not a complete set of their own catalogues, and there is scarcely one that has from the beginning carefully preserved all its own literature. Such neglect is to the last degree blameworthy. It is only a few years since the authorities of our own library deliberately destroyed a multitude of pamphlets, some of them of considerable value, and now difficult to replace, simply because they were in the way.

If any of our readers have educational documents of any sort which they can spare, they would do well to send a list of such to Mr. Bardeen, who can inform them at once as to the value of the works, and who will be glad to obtain such as are not already in his collection. To send such a list will be an easy matter, and we have but a poor opinion of the professional spirit of any teacher who has not interest enough in his calling to be glad that Mr. Bardeen has undertaken this work.

Whenever it is in order to defend the classics as the chief constituent of secondary education, it seems inevitable that the most astonishing statements should be put forward as arguments and apparently be acquiesed in by persons who, in other matters, would be fairly critical and judicious in weighing reasons. Thus, at the recent meeting of secondary teachers in Boston, Mr. Mowry, a veteran teacher of *realia*, quoted with approval the very unphilosophical announcement of Dr. Wm. T. Harris that, given five hundred boys pursuing an education without Latin, and fifty other just such boys studying Latin, the fifty whose course included Latin would in subsequent life prove to have " distanced " the five hundred. Vaticination of this sort cannot be dealt with except by counter prophesying, and waiting for the event would be as impracticable as it would be to realize the conditions at the outset. Therefore the only thing to do in such a ridiculous posture of debate is to caution audiences and readers to be on their guard against receiving an intellectual bias, a distortion or perversion of common sense, from sources not entitled to guide opinion or assist in forming conviction.

No man whatever has any right to assume to be a seer. The seer habit of speech helps forward no cause in this day of criticism and fearless inquiry. To utter an orphic saying on the "Latin question," is a performance altogether absurd and should be discountenanced, whatever the purpose of the prophet, for the sake of right method and general sanity of thinking.

If we disregard the augural character of Dr. Harris' utterance, as a pleasant figure of speech adopted to gain the attention of a juvenile audience, it still remains an attempt to apply the *clôture* to a debate in full career. But so long as changes are taking place in public opinion, discussion is inevitable, how much soever either side may wish it would stop. In the Swedish parliament the "Latin question" recently came up for debate with the very practical end in view of changing the law of the land with regard to secondary education. In this case it was foreordained that the question should, within the jurisdiction of Swedish law, and at least for the present time, be settled by a vote. How it was settled is shown by Klinghardt in his interesting book, reviewed elsewhere in THE ACADEMY. We wish here to call attention to the way in which, in one instance, the Swedish parliament went to work to inform itself concerning the value of Latin as a disciplinary study. It occurred to Count Posse, a member of the upper house, to get an expert opinion on the matter. He applied to the veteran philologist, Prof. Madvig, of Copenhagen, a man reputed to possess a knowledge of Latin as broad and deep as that of any living scholar. Unable, by reason of sickness, to formulate afresh his view on the question, Prof. Madvig referred his Swedish consultant to his writings, where he had given expression to his belief that the usual estimate by classical men of the disciplinary value of linguistic study generally was too high, and, moreover, that the Latin language in particular had no special quality in virtue of which it was superior to other languages as a means of educational discipline.

*BOOKS RECEIVED.**

Some Curious Flyers, Creepers and Swimmers. By James Johonnot. New York: D. Appleton & Co. 1887.

This is a supplement to the Natural History Readers published by the same firm. It contains 222 pages of matter similar to that contained in the others of the series.

A Synopsis of the *Nature and Effects of Alcohol and Narcotics.* By L. H. Luce, M. D. Boston: D. C. Heath & Co.

Riverside Literature Series Number 24. *Rules of Conduct, Diary of Adventure, Letters and Farewell Addresses.* By George Washington. Boston: Houghton, Mifflin & Co. February, 1887.

Riverside Literature Series Number 25. *The Golden Legend.* By Henry W. Longfellow. With Notes by Samuel Arthur Brent, A. M. In two parts. Part I. Boston: Houghton, Mifflin & Co. March, 1887.

Krüsi's Drawing Manual for Teachers. Graded Course—Analytic Series. By Herman Krüsi, A. M. New York: D. Appleton & Co. 1887.

The Elements of Geometry. By Webster Wells, S. B., Associate Professor of Mathematics in the Massachusets Institute of Technology. Boston and New York: Leach, Shewell and Sanborn

In this book are included both plane and solid Geometry. The former appeared in separate form some time ago and was noticed in the November ACADEMY, page 318. The additional parts have the same characteristics noted there, absence of pretense, excellent arrangement, beautiful typography, clearness of statement and thorough adaptability to the class-room.

Easy Greek Reader. By Evelyn Abbott, M. A., LL. D. Oxford: At the Clarendon Press.

This little book is made up of short selections consisting mostly of Æsop's fables and stories from the life of Æsop. Both because of the easy style and interest of the pieces and the excellence of the notes, they are well adapted to classes which mastering the inflexions are still too immature to commence the Anabasis.

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* Any of these books may be more fully noticed hereafter.

Das höhere Schulwesen Schwedens und dessen Reform in modernen Sinne; von H. Klinghardt. Leipzig: 1887.

The motto on the title page of this work, which is dedicated to Prof. Schmeding, author of "Die klassische Bildung in der Gegenwart," is an official utterance of the Chancellor of the Swedish Universities, and runs as follows: "I believe that the civilization of modern times is slowly but irresistibly breaking away from its immediate association with ancient languages and literature, while at the same time it is absorbing new and indispensible elements of culture; and I further believe that the curriculum of the schools must be gradually transformed in accordance with the course of this development."

To the preface is prefixed an equally important utterance by a prominent German official: "The conception that we are in the midst of a general and irresistible development of our civilization, in consequence of which we no longer need to make the acquaintance of antiquity exclusively and primarily through its literature, but through those further traditions which have meanwhile been developed, can scarcely be controverted, and I only wish that it may everywhere be observed in its consequences."

Dr. Klinghardt is in full sympathy with the spirit of these quotations, and disinterestedly rejoices that lesser neighboring countries like Switzerland, Belgium and the Scandinavian kingdoms may in a certain measure, serve Germany as experimental stations in pedagogy. His work is a careful presentation of the way in which the modern spirit has permeated advanced instruction in Sweden, of the present condition of its higher educational institutions, and of the probable further alterations which are to be made in them in apparent agreement with the Chancellor's views. The voluminous array of facts registered and reported regarding the Swedish educational system has been pronounced by the highest native authority to be strictly correct, and forms a convenient source of reference for those engaged in pursuing an investigation of this subject into all its various foreign ramifications. Interesting also is the comparison drawn by the author between the schools of Italy, Germany and Sweden, in which he discovers respectively three stages of development, the earliest of which appears in the first-named country, and the latest in Sweden. He finds that in Italy the classical gymnasium reigns supreme, suffering but slightly from the competition of the budding technical schools. In Prussia, which is assumed as the leading state of Germany, the realschulen and the realgymnasien with their five year courses are peers of the classical gymnasien. In Sweden both classes of students are united in the same institutions and under the same teachers, with but a slight differentiation of studies. In Italy the road to the university leads exclusively through the classical gymnasium; in Germany a narrow side-door has been opened to the graduates of the realgymnasien too; in Sweden the latter have only to submit to a subsequent examination in Latin to behold all the academic careers thrown open to them. Even this requirement may be reduced, and for the civil service Latin is not considered to be at all essential. In Italy, as in Austria, the modern languages do not appear in the curriculum of the classic gymnasium as required branches; in Prussia only one appears; in Sweden two. In the lower classes of the Italian institution the older branches still prevail,—Italian, Latin and Greek, and a little history, geography and mathematics. In Prussia there is a full course in natural history and French; and in Sweden to the same studies German is also added. The comparison is carried still further, and the author draws the conclusion that, as the German schools occupied in the past the position of those in Italy, they are now inevitably gravitating toward the standpoint of the Swedish institutions.

Director Krumme, of Brunswick, in a recent article, has noted a similar drift in Norwegian schools, which seem to be keeping pace with their Swedish neighbors. He observes the same liberality respecting positions in the civil service and the army, and points out as a sign of the times that a knowledge of Latin is no longer demanded for admittance to the French military school of St. Cyr. This, as he states, has long been the case at the military school in Woolwich, where, since 1885, Latin and Greek have not been taught even in the institution itself.

To readers of THE ACADEMY who have been interested in the recent valuable contributions to the discussion of this question of secondary education abroad, which they owe to Prof. Paulsen and Mr. Thurber, the works of Dr. Klinghardt will afford cumulative evidence of a tendency, the existence of which it would be idle to deny, however great the difference of opinions may be in respect to its ultimate results. He who maintains that the cause of the ancient classics is a slowly dying cause may see reason to rejoice in the coming renascence of their modern antitypes. But if we ask ourselves what conclusions from foreign experience we are to draw regarding our own school system, shall we not soon be forced to admit that the conditions of the problem are with us quite different? Can it be truly said that we have exhausted the possibilities of classic culture? Indeed, are we not just beginning to discover what it may do for us? If our secondary schools are defective, it is perhaps because they cultivate the modern languages too little, rather than the ancient ones too much. A reinforcement of the courses in the former branches and an extension of the elective principle might be of benefit. Meanwhile our bright scientists have university privileges, and even our lawyers need know no Latin. Inadequate as our educational plan undoubtedly is, we may nevertheless, with no pharisaical feeling, maintain that in some respects, at least, we are unlike our Teutonic kin beyond the sea.

A Treatise on Surveying. By William M. Gillespie, LL. D., revised and enlarged by Cady Staley, Ph. D. New York, D. Appleton & Co., 1887. Price $3.50.

There are many who, on looking over the recent books on surveying, turn back to Gillespie's with a feeling that it is still, as it has been for the past thirty years, the standard work on land-surveying, on account of its completeness and cyclopedic character. To such, the revision by Prof. Staley will be received with pleasure, as he has succeeded admirably in preserving its original character while bringing it fairly up to date.

The original work on Land-Surveying, and the later one on Higher Surveying, edited by the present author in 1870, after Prof. Gillespie's death, have been combined in one; giving for the present edition, 549 pages of text and 143 of tables.

Part I. Land-Surveyng. The general methods of surveying and platting are first given, then the method of surveying with chain alone, and with chain and compass. The attention is called, by numerous examples, to the importance of frequent checks, and to neat, systematic field notes. The twenty-four pages devoted to obstacles will be of value for reference. The adjustments of the compass are incomplete, since apparently no mention is made of adjusting the levels on the plate, or the verticality of the plane of the sights; while no hint is given that the needle point may in time be improved by resharpening, or that different instruments may give different bearings for the same line. We cannot but express a regret, that Prof. Staley was unable to find the time and the space to add enough of the data on magnetic declination and variation, collected by the Coast and G. Survey, to allow of interpolations for date and locality as accurately as the original data would warrant; and to discuss the more important of the many problems connected with the rerunning of old lines, problems with which the practical surveyor is brought face to face at every hand, and which he must often decide, whether ignorantly or wisely. The last two topics in transit-surveying are new, and the whole is well treated. Much space is devoted to obstacles in angular surveying, and to dividing up land, making the two subjects complete for reference. The method of dividing up public land and the solar compass complete this part. A fuller discussion of the capabilities of the solar compass would have been desirable; bringing out the effect upon the azimuth, at different times of day and year, of a given error in latitude, declination, refraction, or level of the instrument, which can readily be done by tabulation. The observer would thus be enabled to see the constant care and accuracy required in testing the adjustments, and in setting the arcs, and to know when to take his observations, if he wishes accurate results.

Part II. Leveling. The instruments and methods for rough work and for ordinary spirit leveling are described. The formulas for trigonometic leveling are taken up quite fully, but without examples; while the formulas for barometric leveling are stated without derivation, and in not very good shape for use since no tables are given.

Part III. Topography. The space is devoted to contours, conventional signs, drawing and the plane-table.

Part IV. Triangular Surveying. This appears to be treated so as to serve as a preparation for geodesy rather than developed for direct use in land-surveying or topography.

Part V. Hydrographical Surveying. The sextant is described and the method of locating soundings.

Part VI. Mining Surveying is quite carefully worked up, with examples.

It will thus be seen that the new edition follows the old quite closely, The most important changes are the addition of Davis' method of finding the area by latitudes and departures, covering about two pages; about eleven pages on the gradienter and the stadia; about nineteen pages on the solar compass; some omissions and additions in the part on triangular surveying, and an entire recast and extension of the first chapter in mining surveying; and the addition of the refraction and stadia tables, the latter covering forty pages.

The book is likely to be consulted, as in the past, primarily for land-surveying and leveling, and perhaps secondarily for topography and mining surveying, either by the practical surveyor who has no need for more, or by the engineering student who can find better books on higher surveying. In view of this the question naturally arises, could not some of the space have been profitably saved which has been given to a cursory treatment of higher surveying, without examples or details enough to be of much practical value? Had the author so desired a part of this space could have been devoted, in the first part, to a discussion of errors due to different causes, and to the best methods of reducing their effects on the results; and a part to the discussion of old division lines and some of the problems connected therewith. But the book has been greatly improved by the revision and is likely to retain its place for some time to come as one of the standard works on surveying.

The Greek in English. First Lessons in Greek with special reference to the etymology of English words of Greek origin. By Thomas D. Goodell, Ph. D. New York: Henry Holt & Co. 1886.

This book is not designed to serve as an introduction to the reading of a Greek author, but merely to teach that minimum of Greek necessary to the understanding of the Greek derivatives which one meets in English. Hence only such forms of inflexion are given as are absolutely necessary, contraction is disregarded, and in the vocabulary only those words are introduced which appear in English forms. With these words and inflexions the pupil is expected to make himself thoroughly familiar, and to acquaint him with their use, exercises for translation from Greek into English and from English into Greek are provided. As it is the author's principal object to teach the English, little attention is paid to the arrangement of words or to the constructions, which are sometimes unusual, if not unclassical. After each lesson follow notes on derivation which explain changes in form and furnish the English derivatives, but these are not usually defined, as the pupil is expected to consult the English dictionaries for the study of each derivative. If we count as separate words noun and adjective forms like *euphemism* and *euphemistic*, the pupil studies in this way about 1500 English words of Greek derivation.

The plan of the book seems to be well formed and skilfully carried out. It can hardly be doubted that he who has used the Greek words in their original form will have a much more lively sense of the meaning of their English derivatives, and to the purpose which the author has had in view, it would be difficult to imagine a book better adapted. Yet a wide demand for a book of this character is not probable. Not a little time and practice would be required for the mastery of it, and the boy who has read his Xenophon and Homer, will have a much better conception of the Greek originals In the Anabasis alone occur in one form or another all but twenty-four of the Greek words here given, and the pupil who has read it is in possession of much more material than can be furnished by a book like this. Of course it does not follow that this material is utilized, but that is perhaps the fault of the instructor. There are probably few teachers of Greek who would fail to find the work suggestive and stimulating.

Elements of the Conic Sections. By Rufus B. Howland, B. C. E., Professor of Mathematics in Wyoming Seminary. Boston and New York: Leach, Shewell & Sanborn.

The author is a practical teacher, and this little volume has grown out of the work given to his advanced classes in Geometry. It defines a conic section as "a curved line the distance from any point in which to the directrix is in constant ratio to its distance from the focus"; then it distinguishes the three conics as the parobola in which this ratio "is unity," the ellipse in which it "is greater than unity," and the hyperbola in which it "is less than unity." Building on these definitions, the book goes on to state and prove the fundamental properties of these curves. No previous knowledge is required on the part of the pupil except the elements of plain geometry; and only in the last proposition does the author remind his readers that he is dealing with the sections of a cone. The book is designed as a text book, and certainly, so simply and naturally is the subject developed, it is quite within the range of high school and college work and will prove a great boon to those teachers who wish to give a good knowledge of the elements of this important subject and at the same time to keep within reasonable limits. There are some slight defects, from which no first edition is ever free; but no one will see them quicker than the accomplished author.

We give below a bibliography of current periodical literature on education and other topics which we think will be of special interest to teachers. The list includes only articles from periodicals not nominally educational. It covers the months of March and April of the current year, and will be continued in succeeding numbers. No claim of completeness is made, and the comments are purposely made as brief as possible. Articles of prime importance will, as a rule be mentioned in *Notes.*

Alaska, The Making of History in. Charles Hallock. *Magazine of American History*, April.

Art Notes to a Deaf Mute Pupil, Virgil William's. Theophilus D'Estrella. *Overland Monthly*, March.

Art of the Renaissance, the Imaginative. Vernon Lee. *Contemporary Review*, April.

Association Controversies, on. Prof. A. Bain. *Mind*, April.

Astronomy with an opera-glass. Garrett P. Serviss. *Popular Science Monthly*, April.

Practical directions for amateur study of the stars of spring.

Athletes of the present and past. H. Ellington. *Nineteenth Century*, April.

Beecher, Henry Ward. An editorial. *Andover Review*, April.

A very well-written and interesting estimate of the great preacher.

Books that have helped me. Prof. Wm. T. Harris. *Forum*, April.

Boston public schools, walks in. Lucretia P. Hale. *Lend a Hand*, April.

Cities, growth of modern. Rev. Samuel L. Loomis. *Andover Review*, April.

Contains interesting statistics.

Classification, the logic of. Rev. W. L. Davidson. *Mind*, April.

Colleges, the Irish Queen's. Eugene Leyle. *The Month*, April.

Commercial museums. Kenric B. Murray. *Contemporary Review*, April.

Dante's life. *London Quarterly Review*, April.

A review of Dr. Plumtre's biographical introduction to his translation of Dante.

Day after to-morrow, the. Robert Louis Stevenson. *Contemporary Review*, April.

A witty attempt to show that a Socialistic state is not likely to be an Utopia.

Demeter and the pig. Andrew Lang. *Nineteenth Century*, Apr.

Development of Religious Liberty in America. *Westminster Review*, Apr.

Ecole Francaise d'Athenes. M. Georges Perrot. *Revue Bleue*, Apr. 2.

Educazione e l'istruzione militare in Italia, dei più recenti provvedimenti sull'. T. Mariotti. *Nuova Antologia Rivista di Scienze, Lettere e Arti*, Mar.

Elephant Myths, American. W. B. Scott *Scribner's Magazine*, Apr.

An instructive article.

Emerson, the poems of. Prof. C. C. Everett. *Andover Review*, Mch.

Emotions, le langage des. M. Alfred Fouillée. *Revue des Deux Mondes*, Mar. 1.

Endowed Schools enquiry, the. Lord Colchester. *National Review*, Apr.

English as she is taught. Mark Twain. *Century*, Apr.

English in Our Colleges. Adams Sherman Hill. *Scribner's Magazine*, Apr.

Prof. Hill gives some good suggestions for teaching English composition.

Ethische Evolutionismus Wilhelm Wundt's, der. Hugo Sommer. *Preussische Jahrbucher*, Mch.

A review of Wundt's recent work on ethics.

Grande Pointe. George W. Cable. *Century*, Mch.

This story gives an idea, perhaps somewhat exaggerated, of the condition of education in some parts of Louisiana.

Grant and Matthew Arnold—"an estimate." Gen. James B. Fry. *North American Rveiew*, Apr.

A comparison of Grant's English with that of Matthew Arnold.

Greek moralist, the earliest. *Macmillan's Magazine*, Mch.

Imperial Institute, the. *Westminster Review*, April.

Indian School Report. J. B. Harrison. *Lend a Hand*, April.

Instinct, what is an instinct? William James. *Scribner's Magazine*, March.

An interesting article with valuable pedagogical suggestions at the close.

Maintenon, Madame de. Rev. H. N. Oxenham. *National Review*, April.

Manual training in public schools. Prof. T. Davidson. *Forum*, April.

Melody in speech. F. Weber. *Popular Science Monthly*, April.

Mentality, storm effects on. George Sand. *North American Review*, April.

Minister of education, the necessity for a. *Nature*, March 24.

Myths, Modern Greek. J. Theodore Bent. *National Review*, April.

Natural history of apes, the. *London Quarterly Review*, April.

Natûrliche System der Organismen und die unteren Grenzen des Lebens, das. Eduard Strasburger. *Deutsche Rundschau*, April.

Naval training school, the. Mrs. Louise S. Houghton. *Lend a Hand*, April.

'Nineteenth Century School' in art, the. Walter Armstrong. *Nineteenth Century*. April.

Norman Leaven, the. *London Quarterly Review*, April.

Shows the influence of the Norman conquest upon English life and language.

Pascal, la philosophie de. M. F. Ravaisson. *Revue des Deux Mondes*, March 15.

Physic in the far East. Unsigned. *Westminister Review*, April.

An interesting sketch of the history of medicine in Japan.

Physikalisch–technische Reichsanstalt, die deutsche. Prof. Franz Joseph Pisko in *Wien Unsere Zeit*, April.

Pompeji, Gemeindewahlen in. Gottlob Egelhaaf. *Deutsche Rundschau*, April.

Press, the transition period of the American press. Dr. Benjamin Ellis Martin. *Magazine of American History*, April.

Prohibition in the United States. Axel Gustafson. *Contemporary Review*, April.

Protectionist revival in Great Britain, the. An American free trader. *Westminister Review*, April.

Ranke, aus Leopold von Ranke's Lebenserinnerungen. Alfred Dove. *Deutsche Rundschau*, April.

Reminiscences of the early life and education of the great historian.

Religion, the teaching of, in our institutions of higher learning. Rev. J. H. Ecob, D. D. *Christian Union*, April 7.

A readable article upon an important subject.

Savonorola, the call of. Emilio Castelar. *Contemporary Review*, April.

Science and pseudo-science. Prof. Huxley. *Nineteenth Century*, April.

A polemic article of some interest in answer to the Duke of Argyll.

Social and physiological inequality. H. D. Chapin, M. D. *Popular Science Monthly*, April.

Social discontent. Prin. D. H. MacVicar, D. D. *Presbyterian Review*, April.

The writer thinks "that the fundamental cause of social discontent is the unsatisfactory nature and results of secular and religious education in our day." The remedy is to be found in Christian education.

Socialism. Edward W. Bemis. *Overland Monthly*, March.

Socialism and unsocialism. Rev. Washington Gladden. *Forum*, April.

Space, the perception of. Prof. W. James. *Mind*, Apr.

State and Higher Education, the. *Nature* Mch. 17.

Tone-color in the English Language, the laws of. Prof. Albert H. Tolman. *Andover Review*, Mch.

Uhland's hundert-jährigem Geburtstage, zu. Herman Grimm. *Deutsche Rundschau*,

University for London, a. *Nature*, Mch. 31.

Veda, the. Prof. William Dwight Whitney. *Century*, Apr.

Vice, le combat contre le. II. la criminalité. M. le comte d'Haussonville. *Revue des Deux Mondes*, Apr. 1.

White, the life, times and correspondence of Bishop White. Wm. Stevens Perry, D. D. *Church Review*, Mch. and Apr.

Contains some reminiscences of Oxford and English men of letters. The article in the March number contains some account of Bishop White's education.

Women in Russia, Higher Education of. *Lend a Hand*, Mch.

American School of Classical Studies at Athens, the. John S. White. *Science*. April 15.

Female education, the Prussian minister of instruction on. *Science*. April 15.

Industry. What industry, if any, can profitably be introduced into country schools? Francis A. Walker and others. *Science*. April 15.

Manual training and public education. H. H. Belfield. *Science*, April 15.

A sensible paper reprinted from the *Industrial World and Iron-worker*.

Political education. *Science*. April 15.

An account of a recent address by Mr. Frederic Harrison, before the Social and Political Education League of England.

Primary, Secondary, and University Schools, the respective functions in education of. S. S. Laurie. *Science*. April 15.

A paper read at the Educational Congress, Edinburg, on the 31st of December, 1886. Good.

Real-gymnasium, the. *Science*. April 15.

A review of C. Dillman's 'Das Real-gymnasium,' translated from the Pädagogisches Archiv.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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*LATIN PHILOLOGY AND THE TEACHING OF LATIN.**

BY PROFESSOR E. P. MORRIS, OF WILLIAMS COLLEGE.

The studies and the methods of the preparatory schools are generally understood to be fixed by the opinions of the preparatory teachers, in accordance with their own views of education and with the entrance requirements of the colleges. The preparatory course seems, therefore, to be subject to variation, according as the *consensus* of opinion of the instructors, college and academical, may vary. It is the purpose of this paper to look behind these two immediate causes, and to call attention to a force back of them, which in large degree fixes the limits of their action and variation.

That force is the investigating science. For it would be hard to name any study, even in the common schools, which is already so fixed and so finished that nothing remains to be discovered in it. And especially as we approach the period of special preparation for college, we may see that the subjects which we teach are, for the most part, the elements of living and growing sciences. While we, at the one end of the line, are teaching to school boys what is meant by the solid, the liquid and the gaseous states of matter, some investigator at the other end of the science is still at work upon this very subject, and is teaching the world that there are no permanent gases.

* A paper read before the Massachusetts Association of High School and Classical Teachers, at Boston, April 9, 1887.

Or while the instructor in French is leading his pupils to compare *avoir* with *habere*, the Romance philologists are tracing the less evident lines of connection between the Latin and the modern languages.

The same thing is true of the study of Latin, but because the home of investigation has been across the ocean, it has been less obvious to teachers of Latin that they have to do with the elements of a still-advancing science. One can hardly overlook the facts in the case of Biology; the life of this science has been so brief that there may be said to be not more than two generations of biologists, and the younger generation, now teaching in our schools, has learned its methods not from books, but from the lips of the original discoverers and in their laboratories. The science and the teaching are side by side; the tug and the vessel are advancing abreast. But Latin philology is a very old science; it has acquired and systematized an immense amount of knowledge concerning the Roman race, its language, its history, its ways of living and thinking, so that it is, unfortunately, possible to study Latin a great many years without suspecting for a moment that some of the most vigorous of thinkers are still busy with problems in Latin philology. To a German, to whom *Wissenschaft* means first of all the study of language, it may well seem astounding that anyone should doubt the existence of a living Latin philology. Yet I was recently thanked by a student who intends to teach Latin, for having encouraged him to see that the study is not dead, and within a year I have heard a High School teacher speak of philology as the comparison of Latin words with English words of the same stem.

Now it need hardly be said that the elementary teaching cannot strike out on lines of its own; it can go only where the investigating science has preceded it, but it may be more or less close in its following, or it may choose to advance no further, and may settle down in some one part of the territory which has been won over from ignorance. If the connection between teachers and investigators is close, the instruction will follow the science with but a short interval; but if the majority of the teachers know little of the living science, then the probability is that the instruction will be found to be either rooted in some traditional spot, or else moving about in a kind of blind obedience to the influence of the unknown force. I ask you to follow me in an attempt to measure the extent and direction of that influence.

The term Latin philology may be taken in two senses: in the narrower sense it is the science of the Latin language, in the broader sense it includes also Roman history and life and thought, all that relates to the form and contents of the Latin literature. We have further to consider the science with reference to the learning to read and write Latin, and so we get the three aspects or phases which gave to this paper its original title. I have called them (not quite to my satisfaction) the literary, the linguistic, and the scientific, and I will take them in that order.

First, then, we must ask ourselves in what way and with what tendencies are the investigators, the scholars, studying the contents and the form of the Latin literature, and how far do the lines of our teaching run parallel to the lines of the science.

When Lambinus, who always seems to me an excellent type of the early scholars, was preparing his commentaries on Horace and Plautus, there did not exist, either in Latin or in the vernacular, such a thing as a reference book on history or antiquities or biography. Each passage in the text had to be explained on the spot, and history and archæology existed merely in the shape of hundreds of scattered notes. Since that time one of these subjects after another has assumed sufficient prominence to be separated from the text-work, and to become a distinct science with a territory of its own. And not only is this the general trend, but just at present there is a very distinct tendency to widen rather than to narrow the gap between the study of the literature and the study of the contents of the literature. When we compare Smith's or Anthon's Dictionaries with Lange's *Römische Alterthümer*, or K. F. Hermann's *Lehrbuch der Griechischen Antiquitäten*, it is plain that the latter show not only a higher degree of excellence, but also a different aim. The alphabetical arrangement suitable to a book of reference, has given place to the logical arrangement of a text-book, and the separation of the science of Archæology from the study of the text may be said to be complete.

How far has this change been recognized in our habits and methods of teaching? I will not press upon you the question how far in your own private study you have followed this tendency, and have taken up these branches of philology for other purposes than to explain a chance allusion in the literature. It is open to anyone now-a days to say "I have been studying something else," and such would have to be my own answer. Look rather at our text-books. Are they following the method of the nineteenth century, or of the sixteenth? Are not they and we alike, in our honest desire to be thorough and to make the life of the Romans a living reality to our pupils, going directly contrary to the tendency of the science? Instead of separating history and archæology from the text-work, we are running counter to the healthy specialization of the science, and exposing ourselves to the just censure that our pupils are learning nothing thoroughly, by attempting to combine under the one word "Latin" studies so different as constitutional history, rhetoric, political economy, sociology, mythology, and a host more.

Here, then, is one particular in which we have certainly not felt the influence of the science, and in which it would have been better for us if we had.

If we turn to the side of pure literature, the aesthetic, that side which first drew the attention and admiration of the Italian scholars and poets, we find tendencies not dissimilar. Here also those qualities which were at first a subject of admiration and imitation have become a subject of scientific study. Teuffel's History of Roman Literature is at once an example and a proof, but indeed the tendency is so plain that it needs no proof. All that it needs, if anything, is that it should be clearly faced in all its meaning.

Accepting it as a fact, I should make upon it two or three brief comments. In the first place, nothing so surely marks the decadence of a once-prevalent habit of thought, as the inclination to dwell upon and quarrel over trifles, and the accompanying inclination to be original at the expense of correctness, to fashion brilliant explanations when no explanations are needed. This is what surely happens when minds capable of genuine thought are turned by an ill fate upon subjects where there is nothing to discover. One reason why this state of things is deeply to be regretted is that it is the foundation, as it appears to me—at least in part the foundation—for the very prevalent opinion that classical philology is a dying science. The philology of Boccaccio and Petrarch is dying, or dead, but that is not our philology.

And, again, we must consider whether such a movement as this is single and alone or is only a part of a great and long-continued tendency. In the former case we might oppose it; in the latter, the utmost that conscious effort can do is to watch sharply for the turn of the tide and be very ready to welcome a new order. It may be that some of you see in the decided swing away from grammar toward sight-reading the beginning of a change, but—for I am sure that I am here for frank speaking—I do not think that change will appear first in the schools, but among the investigators who are always a few steps ahead of the schools, nor will it appear in philology while the scientific tendency is in full swing in other fields of thought, nor, again, is it likely to prove a mere return to the methods and mental attitude of the fifteenth century.

And now back to our teaching. Are we trying to make, or wishing we might make our pupils see the Latin masters through the eyes of the men who revived learning? But for one thing, I should think that we are not; that one thing I cannot explain except upon the hypothesis that we are, and that one thing is the presence of Vergil in our preparatory course. I can see no reason why we should read him *then*, except the reason (strong enough, you will perhaps say) that he is the greatest Roman poet. To this extent our teaching in the preparatory schools is still under the influence of the humanistic spirit, and has not followed the investigating science in its turning away from literature. And in the college work, Horace, Catullus, Terence, which lies outside of my present field, the separation is still more distinct, so that I think we may say that nowhere else is the gap so wide as here.

For such a state of things there must be some especially cogent reason. That reason I suppose to be the feeling that the power of a great work of art for the culture of the individual is a permanent power. However much the science may turn away to other and fresher fields, having said its last word about the excellence of the Venus of Melos, that figure remains an immense awakening and stimulating influence to the individual life. One is sometimes struck with what seems the culpable and superficial indifference of professional musicians to the great masters, to Bach and Beethoven, in comparison with their eager interest in the newest composers. Ask a professional musician to play, and he gives you Liszt or Scharwenka; propose a concert and he takes you to hear Dvorak's Spectre's Bride. Now this is simply that professional indifference to the purely aesthetic side which we have seen to be a characteristic of the philology of the present. And as every new pupil in music must have his time of learning Bach, so every cultivated man must come in contact with great masters of thought and feeling in literature.

I do not propose to argue here the question of the extent to which the study of art should enter into education. That question is mainly one of emphasis, of degree, and it will be settled only by the general trend of thought. But I am distinctly of the opinion that it is out of place in the preparatory work, and as I understand that it is incumbent upon every one who writes on education to propose some pet revolutionary plan, so in the performance of that duty I propose my favorite revolution—to remove Vergil from the college requirements, and to substitute easy prose.

An outline of the reasons which have led me to this point would be somewhat as follows:—

(1) The Latin literature is at best only second-rate.

(2) Our own literature has taken up into itself and can give out again to us much of what is most vitalizing in the thought and art of the Romans.

(3) The love of art cannot be taught; it comes of itself from contact with the beautiful. But between the young student and the beauty of the Æneid rises the wall of a foreign language.

These reasons, with some others which cannot be so briefly outlined, have been leading me to the conclusion that we are overestimating the possible effect of the Latin poetry upon our pupils, and are giving too great a weight to the aesthetic side in choosing what we shall teach. As the whole question turns upon the comparative value of different studies, I should add another reason:—

(4) The preparatory course in Latin is overloaded, and the non-essentials must be thrown overboard to make room for the essentials. If, then, there are any branches of the study of Latin which are especially necessary to the preparatory work, but not to the college, they should be allowed to crowd the study of literature out of the schools into the colleges. We must, then, go on to see what these essentials are, and to what end they might be taught.[1]

Leaving this question for the present, I come to the second of the three points of view from which I have wished to look at the study of Latin, that which I have called the linguistic, that which is concerned with the learning to read, write and speak the Latin language. When I gave my subject to your committee, I intended to speak at some length of this, but upon learning that Professor Hale was going to address you upon it and after reading his article in the February ACADEMY, I am very glad to leave it in his hands and to confine myself to a word or two. I do not, of course, know, as I write this, how far I may be merely repeating what Professor Hale will have already said, but if, as I hope, I am in substantial agreement with him, I shall be glad of the opportunity to be the first to give a public adherence to his views.[2]

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[1] I am told that the prevalent custom in German conservatories is to reserve the study of Bach to a late point in the course, in spite of the fact—an important consideration—that no better finger exercises could be found than his works afford. For the mechanical drill, music is used which has no great artistic merit.

[2] The agreement proved to be only partial. I cannot tell, until I see Professor Hale's article in print, whether his very kindly and searching criticism will lead me to modify my views or not. But his conception of the *rationale* of sight-reading is, to my mind, a very important contribution to pedagogy.

My main purpose has been to discover the points of contact between the advancing science of philology and our methods of teaching. But between philology and linguistics there is, except for the common language which is their material, no point of contact. For the study of a language with a view to reading it is not a science at all, it is an art; it is learning how to do, not learning facts and their relations to each other. We must not be confused—to repeat what I have said elsewhere—by the word *Latin*, as if all studies which have to do with Latin must be much alike in character. I have two friends who are studying music, but one of them is writing a key to all the arts, the other is learning to play the violin, and I do not see that they have much common ground. So from the science of Latin philology, either in the past or the present, not much is to be gained as to the best way of learning to read Latin. But the very recognition of the fact that the two studies are different in kind is itself a point gained, since it gives us some negative results. It tells us, on the one hand, if I am not greatly mistaken, that the process of learning to read and write Latin has in it comparatively little disciplinary, (or if that is too old-fashioned a word,) little educative power—or at least little power to educate the active reason. A certain instinctive comprehension of language and perception of thought behind language, an increased command of language, perhaps a clearer art of putting things—these I should think would be given by it, and I do not mean to undervalue these capacities. But they are in the main passive and non-scientific ; they are preparatory to further language-study, but I cannot see how they can be considered to be preparatory to physics or biology. Only a science can prepare for a science, and I fear for the result, if we give up the whole or the larger part of our Latin or Greek work to the study of language in this sense.

On the other hand, if linguistics and the science of philology have so slight a relation to each other, it is plain that the attempt to learn the language through the science is a mistake. A hundred years ago people learned to read Latin and to write and speak it, too, and Thackeray is perfectly justified in making George Warrington in "The Virginians" talk with the Dutch ambassador in the language which we now-a-days seem unable to learn. The trouble is that the science of Latin philology has been thrusting itself in where it cannot help, but can only obstruct. We might as well—to use my former illustration again—hope to learn to play the violin by reading Hegel's Aesthetik, as hope to read Latin by studying philology. And nothing in this whole subject is plainer to me than that we must keep our philology and our reading strictly apart if we are to get any good out of either. While therefore I do not see in the present interest in sight-reading and similar methods of learning Latin any indication that the science of Latin philology has had its day in our schools. I do welcome it most heartily as a return to a right method and as a correct readjustment of our teaching to our science—a readjustment which a clever perception of the meaning of "our beautiful science" would have rendered unnecessary.

Of the three phases of Latin-study, the last is what I have called the scientific, that is, philology in the narrower sense, the science of the Latin language, and I come now to the question what it is and how far it has worked into our instruction.

In speaking to an association of teachers from classical schools, I need hardly say that Latin philology is now much more than a tracing of vague resemblances between roots. Since the time of Max Müller's earliest writings, there has been a great widening of the philologist's horizon. We are still studying etymology, but we are also tracing the laws in accordance with which sounds have developed from lower into higher complexity, and are examining with wider knowledge the whole subject of lexicography and phraseology and the laws of sentence building. And all the vigorous life which philology shows at the present time seems to rest upon two modern scientific conceptions:—first, that language is not simply a means of recording but is also in itself a record of human life, and therefore touches physiology on the one side and psychology on the other; and, second, that it is a gradually unfolding record, and should therefore employ all the methods and hypotheses which attach to the idea of evolution.

If one could make a diagram of the history of the study of Latin, it would start with a long horizontal line, wide and black at its beginning but growing gradually narrower, to represent the endeavor of the modern world to understand what is expressed in Latin; from this line would branch off at intervals other lines representing history, political and social, antiquities, aesthetics, mythology and religion, and the other special sciences. Of all these lines the latest, the most distinct and the most rapidly widening would be the line which would represent the science of the Latin language. Or if we could represent the course of philology by a single line, turning this way or that, as the thought-current of investigation has turned, the deepest curve of all, and to us of the nineteenth century the most significant, would be the scientific curve.

To decide how far this newest philology has penetrated into our school work, that is, to determine whether there is a deep curve in the line of the teaching corresponding to the curve in investigation, it is necessary that we should examine a number of convergent lines of evidence, and especially that we should consider without prepossession just what kind of text-books* we are using and just what it is that we are doing in the class-room. For this examination I have no time to-day, but some criticisms which have been made upon a previous attempt of mine to show that our instruction is very largely scientific lead me to make two or three remarks upon this point.

The first question for us all is one of fact simply. Whatever be our individual preferences or ideals, we are all interested in knowing what we are doing, and we shall only confuse our minds, if, at this point, we allow ourselves to dwell upon the consequences of facts. To my own mind, the belief that philology has driven out literature throws a flood of light upon our doubts and discussions in regard to the classics, and explains the confusion of attack and defense alike.

The second question, perhaps, is one of ideals. Shall we follow Mr. Lowell and Mr. Arnold, and hold with all our might to the literary and humanistic ideals which have seemed to us to embody all that is noblest in thought and aspiration? Or shall we cut loose, and let the current carry us? I have no answer to this question, and in all the answers that have been made, I find nothing authoritative, nothing more than the expression of individual taste. I have an absolute conviction that there can be no high civilization without art and literature, as I believe that religion and manly character go together, but I have not yet seen any sure ground for thinking that art and literature and religion can be taught in our schools. "The kingdom of heaven cometh not by observation."

But there is a third question, which should perhaps come in the second place, and that is the question how far these tendencies are under our control. We are in this matter dealing with one of the great streams of human thought like the Renaissance or the Reformation, though perhaps less sweeping than they. Beginning early in the century, it has carried all before it and has penetrated everywhere, into aesthetics, into history, into theology—into the study of Latin. Every college in the land, every university in any land has shut its doors against the new form of thinking, and has lived to see the error of its ways. Stop it we evidently cannot; but one thing we may do if we do not choose to fall in with it; we may follow our very natural instinct and refuse to recognize it in our teaching. I can see no third course. And then the stream will go on, and all the indications are that the investigating science of philology will go with it, and we shall be left teaching to our pupils, as a preparation for the intellectual life, something which is quite apart from the intellectual life of the race, something which men have ceased to think about, and which our pupils will cease to think about the moment they leave our schools.

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*Note, for example, the wide use of Curtius' Grammar, and the intimate connection between the school-book and the investigator's laboratory, or follow the all but universal method of teaching the syntax of the Greek complex sentence back through Goodwin's Grammar to its source in his Moods and Tenses.

Now the alternative to this may not be, at first sight, a pleasant one. To some of you, I believe it seems a thinly disguised Philistinism. I will not say that it is, in all its aspects, grateful to my own feelings. But I believe that we shall gain in the long run by accepting accomplished facts, and there is to me a great assurance of security in the confident belief that no science which shares the thought-movement of its age can die, and that no teaching which goes hand in hand with the investigating science can fail to be fruitful.

*IS CLASSICAL EDUCATION PRACTICAL EDUCATION?**

So far we have probably all gone together. We must all, at any cost, learn to observe accurately and to reason accurately from the things observed. We must also learn the things that are of interest and importance, even if we have to go elsewhere for training in accurate observation and correct inference. The ideal subjects for education, those that come under both heads, are the subjects that are of interest and importance (those that, in a word, are in the best sense practical), and that, at the same time, are to be got at by processes that will form the scientific habit of mind. Professor Morris has admirably shown the great value of classical studies on the latter score, a value equal in the early stage of education, on account of the nature of properly conducted work in learning these particular languages, to that of what we may briefly call the physical studies—and, for the present, at least, even superior, on account of the availability of the apparatus, namely, the author's words, and the poverty of the schools in physical apparatus and laboratories. But to possess this value is not enough. For if the physical sciences, though they should prove to be less suited at the beginning, or even finally, to teach young minds habits of true observation and right inference, yet are of more interest, of greater importance, in a word, more practical, then we ought to reorganize the work of our preparatory schools and colleges by substituting the natural sciences in place of the classics. Up to this point, also, I hope we have advanced in company.

So, then, we have reached the question, What is in the best sense practical? what is of interest and importance in the average human life? It is a very old question, because it is fundamental. But, old as it is, and easy as in truth it is, it is not yet settled. It is thought by many that the current of opinion is setting in the direction of a belief that the things that are of interest and importance to the average man are the constitution and behavior of chemical agents, of fluids, of the undulations that produce in us visual and acoustic results, of plants, of animals, of the heavenly bodies. For some men, certainly, these are the practical things; and we can, therefore, at once narrow the debatable ground by disposing of a part of the question. To the man who is to devote his life to the building of railroads and bridges, the most important thing is the knowledge how to build an excellent road and an excellent bridge. To the man who has a genius for inventing improved machinery, the most important thing is to understand what has been done, and to have his powers developed that he may do still better. But we are not discussing the education of the civil or mechanical engineer, the electrician, the inventor, the practical chemist. It is a pity if there is not time to educate them first as if they were to be average untechnical men, and then to add thereto their education as special workers. But let that go. We are speaking of the needs of men of the untechnical classes, lawyers, doctors, journalists, ministers, business men, men of leisure. The truism will be granted us, that man is a creature of wide-reaching and varied capacities. To educate him is to arouse these capacities and set them into action, to make him alive to all that touches most vitally the life of his race, which is only another way of saying, to all that is of supreme interest and importance.

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*From the address on Aims and Methods in Classical Study (to be published shortly by Messrs. Ginn & Co.) read by Professor William Gardner Hale, of Cornell University, at the meeting of the Massachusetts Classical and High School Teachers' Association, Boston, April 8, 1887.

What, then, are the matters which to the average untechnical man are of supreme interest and importance? On this question I shall call both a man of science and a man of letters to help me; quoting first from the address on the Mission of Science, delivered before the American Association for the Advancement of Science, at the meeting in Philadelphia in 1884, by Professor Thurston:—

> What is the object of directing this enormous array of intellectual power into the field of scientific inquiry? Having settled upon the form of the system, and the details of the mechanism by which this development of science is to be secured with greatest ease, accuracy, and rapidity, to what purpose is this great scheme to be applied? What is the use, and what is the object, of systematically gathering knowledge and of constructing a great, an elaborate, system having the promotion of science as its sole end and aim? What is "THE MISSION OF SCIENCE?"
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> The mission of science is the promotion of the welfare, material and spiritual, physical and intellectual, of the human race. It has for its purpose and its object the improvement, in every imaginable way, directly and indirectly, of the mind and the body, the heart and the soul, of every human being. It is charged with the duty of seeking the cause of every ill to which mankind is subject; of finding a remedy for every misfortune to which the race is now liable; of ameliorating every misery known to sage or savage; of seeking ways of giving to all every comfort and all healthful luxuries; of reducing the hours of toil, and offering to the relieved laborer intellectual occupations that shall at once take from him all temptation to waste his life in indolence and dissipation, and give him aid in his feeble efforts to climb upward into higher life; of enlightening the world intellectually; of giving it leisure to perfect itself ethically, and to gain those elements of character that are so sadly

> crushed out by the terrible pressure of our incomplete civilization, sentiments of honor and justice, feelings of love and sympathy, and a spirit of devotion that can only be found highly developed in either the simple child of nature, or in the soul that has time, in the midst of a driving world, to reflect, to aspire, and to grow. The true mission of science is one that extends far beyond the workshop of its servants; it extends far beyond our ken, and beyond the range of our mental grasp and farthest view. The great fact that material prosperity is the fruit of science, and that other great truth, that as mankind is given opportunity for meditation and for culture, the higher attributes of human character are given development, are the best indications of the nature of the real mission of science, and of the correctness of the conclusion that the use and the aim of scientific inquiry are to be sought in the region beyond and above the material world to which those studies are confined.

This is the position taken on the question, what is of supreme interest and importance, by a scientific man of great success, himself professionally engaged in directing the training of mechanical engineers. "The use and the aim of scientific inquiry are to be sought in the region beyond and above the material world to which those studies are confined." We can agree to that.

And now for the answer of a man of letters, Dr. Johnson, given in his Life of Milton: —

> But the truth is, that the knowledge of external nature, and the sciences which that knowledge requires or includes, are not the great or the frequent business of the human mind. Whether we provide for action or conversation, whether we wish to be useful or pleasing, the first requisite is the religious and moral knowledge of right and wrong; the next is an acquaintance with the history of mankind, and with those examples which may be said to embody truth, and prove by events the reasonableness of opinions. Prudence and justice are virtues and excellences of all times and of all places. We are perpetually moralists; but we are geometricians only by chance. Our intercourse with intellectual nature is necessary; our speculations upon matter are voluntary and at leisure. Physiological learning is of such rare emergence that one may know another half his life without being able to estimate his skill in hydrostatics or astronomy; but his moral and prudential character immediately appears.
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> Those authors, therefore, are to be read at schools, that supply most axioms of prudence, most principles of moral truth, and most materials for conversation; and those purposes are best served by poets, orators and historians.
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> Let me not be censured for this digression as pedantic or paradoxical; for, if I have Milton against me, I have Socrates on my side. It was his labor to turn philosophy from the study of nature to speculations upon life; but the innovators whom I oppose are turning off attention from life to nature. They seem to think that we are placed here to watch the growth of plants, or the motions of the stars. Socrates was rather of the opinion that what we had to learn was how to do good and avoid evil.

Dr. Johnson twice needs supplementing here. As we all know, he betrays no susceptibility to the highest qualities of imaginative literature; and it is in precisely these qualities that literature reaches the expression of that which is highest in the human mind. Secondly, he betrays no understanding of that instinct of human nature which, as Professor Morris has told us, has come to play so mighty a part in all our thinking to-day,—the imperious desire to know the causes of things; in a word, the scientific spirit. We are all scientific nowadays. The human mind has taken all knowledge to be its province. We all want to know the whole of the universe, and the place and part of man in it.

But we cannot know well both the field of the natural sciences and what we may call the field of the historical sciences. We must choose, for our main occupation, the one for which we have a distinct taste, and then continue, by friction with the great thinking and writing world, to get as much as possible of the other. We shall do right to follow our tastes, whatever they may be. So much is assured us, and rightly assured us, at some point or other in the new education. But if our tastes lead us to that knowledge which is the great and frequent business of the human mind, we shall choose to understand man himself, as he has shown himself in history, and above all, as he has shown himself still more intimately in literature.

We are dealing here with a point upon which there seems to be, of late years, a strange misconception. It appears to be constantly assumed that, "discipline" apart, the study of mathematics, of physics, of chemistry, of electricity, supplies not only to the technical worker, but equally to the average man, something which he will be constantly putting into use, while the study of the classical literatures and other matters connected with them supplies the students with idle things, mere accomplishments, having no connection with daily life. The misconception arises from the fact that mathematical and scientific studies lead to those marvellous triumphs over our natural lot which have added so much to the comfort and pleasure of living, and to the interchange of thought. Nothing rightly follows from this fact except that the technical worker, and especially the man of inventive genius, must have the scientific training. As for the rest, the blessings of the steam-engine, the telegraph, the graphophone, fall alike on the scientific and the unscientific. I am a devout believer in the importance of giving to every student mathematical training—an absolutely indispensable thing in the best liberal education—and a training in some two or three of the natural sciences, —say botany, physics, and chemistry,—sufficient to give him some understanding of the way in which scientific work is carried on, and a clear conception of that regular recurrence of like phenomena under like conditions, which we call law; [1] just as I am a devout believer in the importance of giving to every student some knowledge of the Greek and Latin literatures, and as much of a love for them as possible—an absolutely indispensable thing (why should I not say what I believe?) in the best liberal education; a knowledge and enjoyment of German and French literature; and a knowledge and love of that great and noble literature which belongs to our own race; together with some knowledge of those purely mental subjects, psychology and logic, and the physiological basis on which they rest. I deprecate the apparent tendency of our times, which threatens to carry us on to a point at which there will be a sharp splitting of education into two parts; the serious student of literature knowing nothing of natural science, and the serious student of science having no catholic introduction to, or respect for, literature. I feel that it is one of the great needs of education now that classicists and scientists should hold together and insist that the best education consists of a broad basis of knowledge and sympathies, with a thorough mastery of one's own powers, obtained by a pretty exclusive devotion, during the latter part of a college course, to a few things,—be they classics, or modern languages, or mathematics, or natural science,—to which the student's individual turn of mind leads him, in a system of absolute freedom. But I hold it to be not only the very bane of mathematical and scientific studies in a liberal education to maintain that their value lies in their practical applications, but to involve an absolute untruth. The uses of mathematics which the average untechnical man makes in his daily life are the operations of addition, subtraction, multiplication, and division, applied to operations of which the calculation of interest is probably the most complicated; and these matters he learned, not in college, nor in the high or corresponding private school, but in the grammar school. As for geometry, the average man uses very little of it, while algebra commonly drops wholly out of his life, as clean forgotten as our friends the objectors to the classics tell us Greek and Latin are. And precisely the same thing is true of any practical application, in the life of the average untechnical man, of acoustics, optics, chemistry; and pretty nearly true of the forgetting of them. And so Dr. Johnson is prac-

[1] I doubt very much if, in a well-planned education, the study of the classics could ever replace wholly the study of natural science. For myself, my first perception of the fact that in this world like phenomena recur under like conditions, was got, not from the study of the development of the classical tongues, but from work in entomology, outside of the college curriculum, carried on under the direction of a classmate who is now a special worker in that field. The development of a language is equally under what we call law; but the phenomena are too difficult, and the tests too little obvious, to serve the purposes of a young student.

tically right. "Physiological learning is of such rare emergence that one may know another half his life without being able to estimate his skill in hydrostatics or astronomy; but his moral and prudential character immediately appears." The things that are of supreme interest and importance to the average man, and even to the technical worker, so far as he can give himself that leisure to perfect himself ethically, which Professor Thurston says it is the mission of science to provide some day, in some measure, for the whole human family, are, not the things of external nature, but, to use a phrase that has grown familiar, the things of the mind.

Those studies, then, which will satisfy the two requirements, of dealing with the things of the mind, and of bringing about a right habit of mental procedure, will constitute that ideal and indispensable part of education for which we have been inquiring, on behalf of the boy who is to be one of the great multitude of untechnical workers.

Now the study of Latin and Greek, properly pursued, satisfies the first requirement so far as the preparatory school is concerned, as well as the study of science can do, and, on account of the availability of the apparatus, even better; whereas, as regards the things of the mind, the natural sciences—physics, botany, acoustics, and the rest—do not deal with them at all, while the Greek and Roman literatures deal with them in an unsurpassed degree, beside being a large and important part of the record of the intellectual ancestry of the life which we now live.

SOME FAMOUS SHOOLS.—II. RUGBY.

It is not always easy for one to understand institutions radically different from those in the midst of which one was bred. It is doubly hard to do so where the institutions present an intricate organic growth, and where customs still remain long after the causes that gave rise to them have ceased to exist and it may be have been entirely forgotten. To an American the English public school is such an institution. It is the purpose of the writer not to dogmatize as to what ought to be, but simply to present an account of what is. He neither attacks nor defends, for he is writing for those who do not need to be told when to blame or when to praise. He accepts the maxim of Spinoza: "*neque ridere, neque flere, nec detestari, sed intellegere.*"

The school at Rugby was founded in 1567 by Lawrence Sheriff, a grocer of London, to furnish instruction free to boys of Rugby. The story is told that he first devoted to that purpose a sum of money, but afterwards withdrew the money gift and in its place gave real estate. However that may be, the eight acres in Middlesex, which brought at his death a rental of only ten pounds sterling, is now in the heart of London, and its value is said to have increased a thousand fold. The original purpose of the school has largely lost its distinctness, and Rugby is now famous as a place where gentlemen send their sons and where gentlemen are bred. Another school has been established with the founder's money to furnish instruction to residents, and in the great school only a small per cent belong to the town, and thus profit by the foundation.

The control and management of the school, which is vested in a Governing Board of twelve men, is practically delegated entire to the Headmaster. He may hire and dismiss the other masters. By the statutes there must be not less than one master for every twenty boys. These masters receive various salaries, the lowest being £450, and seven of them are designated by the headmaster to receive boys as boarders. These have in addition to their salaries whatever profit may accrue from the fixed charge of £72 a year, which is paid by boarding pupils. All the boys must live either at home or with one of the house masters.

The oldest of the present buildings was erected in 1810 and is associated with the memory of Arnold, whose study, little changed, is still used by the headmaster. In these buildings still remain most of the features described in "Tom Brown's School Days." But within a few years many new buildings have been added. A beautiful chapel, with a monument to Arnold and to Stanley, a large and fine building for class-rooms, a large hall for public occasions, and at the other end of the close a swimming bath, a gymnasium with work-shop underneath and several racket courts. There is also a library with an Art Museum above.

The school at present contains over four hundred boys. The different classes are called "Forms," doubtless keeping up the memory of the old forms or benches on which the different grades were formerly seated. The names of the various grades bear the flavor of antiquity, but none the less require some explanation, more, in fact, than can in some cases be readily given. The whole school is graded from the top downward, and the rank is never absolute, but always relative. In theory the forms must contain not far from thirty, and may be filled from below whenever there is a vacancy. The original designation of the forms from first (the lowest) to sixth (the highest) has broken down, though traces of it are left. At the top of the school is the "Sixth Form," consisting at present of forty-six boys divided into "Upper Bench" and "Lower Bench". Below this comes the "Twenty," a rather peculiar designation of a class which usually has twenty-nine boys, just to save it from being a "thirty." Then comes the "Fifth," then the "Lower Fifth." These five classes constitute the "Upper School." Below the Upper School is the "Middle School," made up of "Upper Middle I", "Upper Middle II", "Lower Middle", and "Shell." The latter word is a corruption of the French *échelle*, because it was a ladder for mounting from the lower school. Upper Middle I is a double form, *i. e.*, two classes of thirty odd each doing the same work. All pupils below the "Shell" are counted as one class, and called the "Lower School."

The school year covers thirty-six weeks and is divided into three terms. At the end of each term examinations are held, and on the results of the examinations together with the term work each boy is ranked. Promotion in no case depends on the absolute work or standing of any boy, but rather on the vacancies in the form above. If by vacancies in any form there should be room for five boys to move up, the highest five boys in the next form would be promoted. If there were no vacancies there would be no promotions. The boys would not, however, on that account cease to advance in their work, for the work of the forms is so arranged that one term is not a repetition of the preceding. A boy might remain for half a dozen terms in one form without repeating any portion of the work. We give below a view of the work done in each form during the past three years. There is no course of study, as we understand it, and this work may be greatly varied in the next three years. There are no hard and fast lines prescribed at an English university, and the men who come up may present the greatest variety in the selections read. It is, therefore, no hardship for a boy to fail of promotion.

Promotion from form to form is made to depend largely upon work in the classics. The form-masters may allow mathematics to affect the ranking by not more than one-fourth or less than one-tenth the weight given to the classics, and science and modern languages by not more than one-fifth or less than one-tenth. A boy's standing in school is thus mainly affected by his classical work, although no boy may hope to attain first place who is weak at any point.

The work outside the classics is done not in the forms, but in "sets," and a boy from any form is placed in the mathematical set, for example, where his advancement naturally puts him. There may be in the same set boys from several different forms, and their rank in the set is sent to the form (classical) master of each. This putting of these subjects on an inferior footing naturally tends to place the teaching of them at a considerable disadvantage, though it is entirely consistent with the theory that the classics are the main thing in education.

In the Sixth Form, Upper Bench, where promotion to a higher form is impossible, boys advance by seniority not by scholarship, so that a boy can never pass another who ranks above him on entering the Upper Bench. The object of this is to prevent the younger and brighter boys from outranking the older ones, for to the Sixth Form is entrusted by time-honored custom the minor discipline of the whole school. This is one of the distinguishing features of the Rugby system. By it the honor and the responsibility of a boy advance *pari passu* as he reaches the upper forms. To a wonderful extent the whole school is impressed with the idea of responsibility, with a feeling that vital interests are committed to its keeping, and the educating power of responsibility can hardly be over-estimated.

About eighty of the boys live in the school house with the head-master. The others, except those living at home, live with the seven house-masters, whose houses are not on the immediate school premises. The system is the same throughout all these houses and is a characteristic feature. The boys have separate studies, little rooms not more than six feet square, containing a carpet, table, chair, book-case and locker, and fitted up with pictures, flowers or other ornaments according to the taste of the occupant. Sometimes two boys have a study together. All sleep in dormitories, several in a room, in separate beds. They are not allowed in the dormitories during the day-time.

No boy is admitted to the school without satisfactory proof of good moral character. The scholarship requirement is a knowledge of common fractions, simple proportion, and Latin accidence. There is throughout the school a limit of age. No one can enter the Lower School after fourteen and one-half, the Lower Middle, after fifteen and one-half, the Upper Middle, after sixteen and one-half. Without special permission no one can remain, except to complete the term, in the Lower School after he is fifteen, in the Lower Middle after he is sixteen, in the Upper Middle after he is seventeen, below the Sixth after he is eighteen, or in the Sixth after he is nineteen. Any boy who reaches the "Twenty" before he is sixteen must remain in that form two terms.

Fagging to an objectionable degree no longer exists, but members of the Sixth may have their errands done and their studies kept in order by the younger boys.

Rugby is one of the more expensive schools, though not the most expensive. The average expenditure is about one hundred and forty pounds sterling per annum. The actual charges at the school amount to one hundred and twelve.

The life of the Rugby boys is arranged on a definite plan with a distinct purpose to secure certain results. Outside of the instruction given by the masters directly, the results sought seem to be summed up in the single word *health*, physical and moral. Nothing is left to chance, but there is continuous and systematic effort intelligently directed toward this result. For this purpose, games like cricket and foot-ball are encouraged and insisted upon to an extent almost incredible. The beautiful close of the school makes a capital play-ground, and there has just been obtained a wide field a short distance away, so that now all the boys in the school may be engaged in cricket at once. Custom gives to the older boys the right to compel all to learn cricket, and so good is the spirit of the school that there is little inclination to shirk. The moral training of the boys is well secured by the example of the masters, the influence of the Sixth, and by the feeling that Rugby honors them and they must honor Rugby. The school spirit is excellent. It is said to date from Arnold's time, and has the strength that time gives everything in England.

Boys are called at half-past six in the morning. They must present themselves in their respective form rooms for "calling over" (roll-call) at five minutes to seven. They hurry at once to the chapel, the doors of which are locked promptly at seven. The service is short, the head-master reading. The masters are scattered about among the boys and the Sixth Form boys occupy back seats. At quarter-past seven there is first lesson, lasting one hour. Breakfast comes at half-past eight, dinner at half-past one and supper at six. In most of the houses milk is furnished in unlimited quantities, and may be had on first rising and late in the evening. Second lesson is from 9:15 to 11:15, the various masters making choice of the first or second portion of the time at their convenience. Third lesson is from 11:15 to 1:15. Tuesdays, Thursdays and Saturdays are half-holidays, on other days there are two lessons in the afternoon. There is a study hour in the evening from quarter to eight till quarter-past nine. The younger boys study in the dining-halls with a master, the older in their studies. There are evening prayers at each house after the study hour, and lights are out at ten. On holidays the freedom of the afternoon is broken by "calling over" at three o'clock, when each boy, unless excused, must answer to his name in the "old big school." Boys are not allowed to go to the railway station or certain parts of the town, but are free to walk where they will outside of the town.

Twenty years ago Rugby was among the most progressive public schools in the teaching of mathematics, science and modern languages. Since that time it has remained practically at a standstill and has been rather losing prestige, for many Rugby boys would naturally go into the army or India service, and for the competitive examinations in those services it failed to give adequate preparation. In January, 1886, therefore, a modern side was established. In it "Greek is dropped as a Form-subject, while the time so gained is given to mathematics, modern languages and science. In the modern side the examinations for Woolwich, Sandhurst and Mathematical and Natural Science scholarships are especially kept in view; as well as the needs of boys who require professional training of a non-classical type." It is, however, placed at a decided disadvantage as compared with the classical side. It is rather a possibility in education than an actuality.

In its physical and chemical equipment Rugby will compare favorably with the best American schools. In the matter of maps, plans and other aids to historical and classical work it is completely supplied. It has an excellent general library, and house libraries in every house, containing popular books. The newer buildings are adequate and satisfactory. The masters are, in scholarly preparation for their work, beyond those of any American school. If Emerson's dictum, "It does not matter so much what you study as with whom you study" be worthy of acceptance, Rugby is certainly equipped as no American school can hope to be. Aside from scholarship and character, as to the exact teaching skill of the masters it is not easy to judge. In those recitations which we saw the master had his work well in hand and the class completely under control. We were assured, however, that such was by no means always the case, and the objections that were made in certain cases to a visit gave some color to the report.

During the Easter vacation Mr. Jex-Blake, the former head-master, resigned. He was succeeded at the beginning of the present term by Dr. Perceval, former head-master at Clifton, and later master of Trinity College, Oxford. He brings to his new work a reputation second to none. All that wide experience and distinguished ability, joined with sound scholarship and progressive ideas, can do for a school, Rugby will receive from Dr. Perceval, and in this case it is certainly a cause for congratulation that both statute and precedent have put entire control of the school into the hands of the head-master.

This article would not fairly record the writer's impressions of Rugby if it made no mention of the hearty kindness and unstinted hospitality with which he was received. His memories of Rugby could not well be pleasanter, and if he has failed to learn it is certainly not the fault of those who have helped him.

We give below the Cycle of Divinity and History as it stands at present, and also a record of the work done in the various forms during 1884, 1885 and 1886. The work in Mathematics is not given, because it presents no essential points of difference from courses in America, except that it may be extended through conic sections:

CYCLE OF DIVINITY (THREE YEARS) AND HISTORY (FOUR YEARS).

		Divinity.		History.
I.	Advent Term	Genesis Exodus	English.	Conquest—Edward I.
	Easter Term	Leviticus Numbers Deuteronomy	English.	Edward II.—Henry VII.
	Trinity Term	St. Matthew	English.	Henry VIII.—Elizabeth.

II.	Advent Term	Joshua Judges Ruth	Roman.	To beginning of 2d Punic War.
	Easter Term	I. and II. Samuel	Roman.	To death of C. Gracchus.
	Trinity Term	St. Luke	Roman.	To death of Augustus.
III.	Advent Term	I. and II. Kings	English.	James I.—Restoration.
	Easter Term	Esther Ezra Nehemiah	English.	Charles II.—William III.
	Trinity Term	St. Mark The Acts	English.	Anne—George II.
IV.	Advent Term	Genesis Exodus	Greek.	To death of Pausanias.
	Easter Term	Leviticus Numbers Deuteronomy	Greek.	To end of Peloponnesian War.
	Trinity Term	St. Matthew	Greek.	To death of Alexander.

NOTE.—The Easter and Trinity Terms may by agreement be considered for History purposes as one; the work to be adjusted as occasion may require. The whole period, as set down above, need not be done in all cases; though it is desirable to finish it, where possible.

THE SIXTH.

LENT TERM.

	1884.	1885.	1886.
GREEK PROSE.	St. Paul to the Thessalonians, i. ii.	St. Paul to Corinthians, Ep. 1, xi.-end, Thucyd. iv. 89-end, Demos. c. Leptines.	St. Paul to Romans i.-viii., Thucydides vii. 1-28
GREEK VERSE.	Plato Memo. i. ii. Iliad, xx. xxi,	Plato Republic, viii, (nearly all)	Aristophanes Aves, Iliad vi. vii. viii. and half of ix.
LATIN PROSE.	Cicero's Letters, part i. (Watson)	—	—
LATIN VERSE.	Virg. Æn. vi. vii. to 640, Plaut. Mil. Glor.	Horace Epistles, ii, Ars Poetica	Georgic ii, Juv. Sat. iii, iv, v. x., Miles Gloriosus, Act. 3, i.-iii.
ENGLISH SUBJECT.	Bacon's Essays, 1-30 Spenser's Faery Queene, ii, 1-7	English History to 14th century (Stubbs, Freeman, Bright)	—
TUTOR SUBJECT.	Finished Thucydides ii.	Tacitus Annals, ii. 1-68	Plato's Republic, i, and half of ii.

SUMMER TERM.

Greek Prose.	St. Paul to the Ephesians.	St. Paul to Corinthians, whole; Plato Republic finished viii., first half ix.	St. Paul to Romans ix. end, Thucydides vii. 29-end.
Greek Verse.	Æschyli Agamemnon.	Œdipus Rex	Anthologia Græca, Thackeray lvi. 26.
Latin Prose.	Cicero's Letters, part ii. (Watson)	Livy xxxi., the whole	Cicero pro Murena
Latin Verse.	Virgil Æneid, vii. 640–end	Æneid, ix.; Lucretius part of i.	Georgic iv., Plautus Miles Gloriosus, last 700 lines.
English Subject.	English History, Early period (Bright and Green), with English Writing	—	—
Tutor Subject.	Thucydides, v. 1–50	Falsa Legatio, 1–130	Plato's Republic last half of ii. and whole of iii.

WINTER TERM.

Greek Prose.	St. Paul to the Corinthians, Ep. 1, i.–x, Thucyd. iv. 1–88	Acts, xii-xix.; Thucydides, vi.	Acts of Apostles xx.-xxviii., Dem. c. Mid. 1-50, Plat. Rep. viii. one half of ix.
Greek Verse.	Ranæ, Anthologia Græca, 90–146	Æschyli Eumenides; Iliad, vi.	Homer Odyssey vii., half of viii.
Latin Prose.	—	Livy, xxxii.; Tacitus Germania, 1-27	Livy i. 1-44
Latin Verse.	Virgil Æneid, viii. Plauti Trinummus.	Georgic, i.; Juvenal Satires, i. iii.	Horace Odes iv. with Epistles 1-7, 16, 17; Lucretius i.
English Subject.	—	Maine, Ancient Law	—
Tutor Subject.	Tacitus Annals, i.	Sophoclis Trachiniæ	Œdipus Coloneus 1-887

TWENTY.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Thessalonians, i. ii., Thucyd. i, 24–78	1 Corinthians, ix.-xiii.; Demosthenes c. Leptines	Demosthenes Olynthiacs, St. Paul to Romans i.-vi.
Greek Verse.	—	—	Homer Odyssey xi.
Latin Prose.	Cicero pro Plancio, 1–71	—	Cicero Philippic x.
Latin Verse.	Virgil Æneid, vi.	Virgil Æneid, xii.	Virgil Georgic ii., Horace Odes ii.
English Subject.	Chaucer, Knight's tale	Milton Areopagitica	Bacon's Essays
Tutor Subject.	Euripides Medea, 1–800	Herodotus, i.	Plato's Apology

SUMMER TERM.

Greek Prose.	St. Paul to the Ephesians	1 Cor. xiv.-xvi.; 2 Cor. i.-vii.	St. Paul to Romans vii.-xii.
Greek Verse.	Euripides Heracleidæ	Œdipus Rex	Sophocles Electra
Latin Prose.	Cic. pro Plancio, 72–end, Select Letters	Cicero Philippic, v.	Cicero pro Murena 1-57
Latin Verse.	Virgil Æneid, xi.	Horace Odes, i.	—
English Subject.	Shakespeare, The Tempest	Shakspeare, Macbeth	Hamlet
Tutor Subject.	Euripides Medea, 824–end, Plato Ion	Homer Odyssey, ix. x. 1-345	Plato's Apology ii. iii., and Crito

WINTER TERM.

GREEK PROSE.	St. Paul to Corinthians, i.–viii.	St. Matthew, v.-xi.	St. Paul to Romans xii.-xv., St. Matthew xii. xiii., Demosth. Phil.
GREEK VERSE.	Sophocles Ajax	Sophocles Philoctetes	—
LATIN PROSE.	Cicero Philippic, i. iii.	Cicero Philippics, vi.-viii.	Cicero pro Murena, end
LATIN VERSE.	Horace Odes, iii.	Virgil Æneid, v.	Horace Odes iii.
ENGLISH SUBJECT.	Shakspeare, Romeo and Juliet	Shakspeare, Julius Cæsar	Chaucer's Clerk's Tale and Squire's Tale
TUTOR SUBJECT.	Herodotus, 1. 1–64	Homer Odyssey, v. vi.	Odyssey i. ii.

FIFTH.

LENT TERM.

	1884.	1885.	1886
GREEK PROSE.	—	—	Demosthenes Olynthiacs, The Choice of Hercules.
GREEK VERSE.	Odyssey, ii. iii. iv. 1-300	Æschylus Persæ, Homer Iliad, vi. part of vii.	—
LATIN PROSE.	Cicero pro Plancio, i.-xx.	—	Cicero Philippics viii.-x.
LATIN VERSE.	Virgil Æneid, vi.	Virgil Æneid, vi.	Horace Odes ii.
ENGLISH SUBJECT.	Milton, Paradise Lost, ii. iii.	Milton, Paradise Lost, i.	More's Utopia
TUTOR SUBJECT.	Euripides Medea, 1-800	Herodotus, i.	Plato's Apology

SUMMER TERM.

GREEK PROSE.	St. Luke, i.-xiv.	—	—
GREEK VERSE.	Euripides Heracleidæ	Herakles Mainomenos	Sophocles Electra 1-1450
LATIN PROSE.	Cicero pro Plautus, 20-end	Cicero Philippic, v.	Cicero pro Murena 1-58
LATIN VERSE.	Virgil Æneid, xi.	Horace Odes, i.	—
ENGLISH SUBJECT.	Shakspeare, The Tempest	Shakespeare, Macbeth	Hamlet
TUTOR SUBJECT.	Euripides Medea 824-end, Plato Ion	Homer Odyssey, ix.	Plato's Apology ii. iii., and Crito

WINTER TERM.

GREEK PROSE.	—	—	Demosthenes Philippics i. ii. and part of iii.
GREEK VERSE.	Sophocles Ajax	Sophocles Philoctetes	—
LATIN PROSE.	Cicero Philippic, i.	Cicero Philippics, vi. vii. ix.	Cicero Div. in Q. Caecilium
LATIN VERSE.	Horace Odes, iii.	Virgil Æneid, v.	Horace Odes iii.
ENGLISH SUBJECT.	Shakspeare, Romeo and Juliet	Shakspeare, Julius Cæsar	As You Like It.
TUTOR SUBJECT.	Herodotus, i. 1-64	Homer Odyssey, v. vi.	Odyssey i. ii.

LOWER FIFTH.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Lysias, iv. part of v. (Shuckburgh)	Lysias, vii. (Shuckburgh)	Shuckburgh's Lysias xiv.-xvi.
Greek Verse.	Iphigenia, Selections	Aristophanes Frogs, Selec. (Sidgwick)	Hecuba Selections
Latin Prose.	Cicero Catiline iii.	Cicero de Amicitia, 79-end	Livy ii. 33-56
Latin Verse.	Virgil Æneid, vi.	Virgil Æneid, xii.	Horace Odes ii.
English Subject.	Milton, Paradise Lost, iii. 415-iv.	Milton, Paradise Lost, v., part of vi.	More's Utopia ii.
Tutor Subject.	Euripides Medea, 1-800	Herodotus, i. 63-100	Plato's Apology i. ii.

SUMMER TERM.

Greek Prose.	Lysias against Eratosthenes, 41-end	Lysias, viii.-x.	Lysias Speeches i. ii.
Greek Verse.	Aristophanes Plutus Selections	Nubes, Selections	AristophanesKnights Selections
Latin Prose.	Cicera Catiline iv. de Amicitia, 1-6	Livy, ii, 1-17	Livy xxi. 1-25
Latin Verse	Virgil Æneid, xi.	Horace Odes, i.	Ovid Heroides iii.
English Subject.	Shakspeare, The Tempest	Shakspeare, Macbeth	Hamlet
Tutor Subject.	Euripides Medea, 800-end, Plato Ion	Homer Odyssey, ix. x. 1-340	Plato's Apology ii. iii., and Crito

WINTER TERM.

Greek Prose.	Lysias, vi. (Shuckburgh)	Lysias, xi. - xiii. (Shuckburgh)	Shuckburgh's Lysias iii. iv.
Greek Verse.	Euripides Alcestis (Sidgwick)	Euripides Bacchæ, Selections	Ion Selections
Latin Prose.	Cicero de Amicitia, ix.-xix.	Livy, ii. 18-32	Livy xxi. 28-44
Latin Verse.	Horace Odes, iii., Ovid, xx.--xxiii. (Taylor)	Virgil Æneid, v.	Horace Odes iii.
English Subject.	Shakespeare, Romeo and Juliet	Shakespeare, Julius Cæsar	As You Like it
Tutor Subject.	Herodotus, i. 1-64	Homer Odyssey, v. vi.	Odyssey i. ii.

UPPER MIDDLE I.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Xenophon Hiero (Holden)	—	—
Greek Verse.	Homer Iliad, xxii. (Sidgwick)	Aristophanes Frogs (Sidgwick); Homer Iliad, i. 340	Sidgwick's Euripides Hecuba
Latin Prose.	Livy, Selections, ii. (Lee Warner)	—	Sallust Jugurtha 43-84
Latin Verse.	Ovid Fasti, v. 1-500 (Hallam)	Virgil Æneid, xi.; Ovid Fasti, ii. 1-200 (Hallam)	Hallam's Ovid Fasti ii. 613-iv. 665
English Subject.	Shakspeare, Julius Cæsar	Shakspeare, Henry IV., pt. 1 (Hunter)	Shakespeare's Richard II.
Tutor Subject.	Ovid Fasti, v. 1-500 (Hallam)	Ovid Fasti, ii. (Hallam)	Homer Iliad xxii.

SUMMER TERM.

Greek Prose.	Herodotus, vii. (Cooke)	—	Xenophon Hellenics i.
Greek Verse.	Aristophanes Plutus (Sidgwick)	Aristophanes Nubes, Selec. (Sidgwick); Homer Iliad, ii. 1-300	—
Latin Prose.	Cicero, part i. pp. 1-23 (Walford)	Livy, ii. 1-26	Sallust Jugurtha 84-104
Latin Verse.	Ovid Fasti, vi. 1-500 (Hallam)	Ovid Fasti, iii. 1-650 (omitting parts)	Ovid Fasti v. 1-505
English Subject.	Shakspeare, Richard III.	Shakspeare, Henry V. (Moberly)	Merchant of Venice
Tutor Subject.	Ovid Fasti, vi. 1-500 (Hallam)	Ovid Fasti, iii. 1-650 (omitting parts)	Ovid Fasti v. 1-505, Sallust Jugurtha 84-104

WINTER TERM.

Greek Prose.	Herodotus, viii. (Cooke)	—	Hailstone's Xen. Hellenics ii.
Greek Verse.	Euripides Alcestis (Sidgwick)	Homer Iliad, xxi. xxii. to line 200	—
Latin Prose.	Cicero, part iii. pp. 226-244 (Walford)	Sallust Jugurtha, 1-42	Lee Warner's Livy Extracts i.
Latin Verse.	Ovid Fasti, i. (Hallam)	Ovid Fasti, iv. 1-600	Ovid Fasti vi. 1-630
English Subject.	Northern Europe (Moberly)	Geography, 201-334, 432-475 (Clyde)	Moberly's Southern Europe 1-115
Tutor Subject.	Ovid Fasti, i. (Hallam)	Ovid Fasti, iv. 1-600	Ovid Fasti vi. 1-630

UPPER MIDDLE II.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Xenophon Anabasis, iv. (Goodwin)	Xen. Cyropædia, 28-38, 66-79(Goodwin)	Xenophon Anabasis v., Pretor
Greek Verse.	—	—	—
Latin Prose.	Livy, Selections, iii. (Lee Warner)	Livy Selections, i. 1-500 (Lee Warner)	Brooke's Sallust Jugurtha 32-64
Latin Verse.	Ovid Fasti, v. 1-402 (Hallam)	Ovid Fasti, i. 337-610 (Hallam)	Taylor's Ovid, Eleg. Sel. xiii.-xvi.
English Subject.	Shakspeare, Julius Cæsar	Shakspeare, Henry IV., pt. 1 (Hunter)	Shakespeare's Richard II.
Tutor Subject.	—	Ovid Fasti, ii. (Hallam)	—

SUMMER TERM.

Greek Prose.	Xen. Anab. i. 1-8 (Goodwin and White)	Xen. Anab. III. i.-iii. 37, VII. i.-iv. 30 (Goodwin and White)	Xenophon Anabasis vi., Pretor
Greek Verse.	—	—	—
Latin Prose.	Sallust Catiline, i.-xxxix, (Merivale)	Cæsar Bell. Gall. vii. 1-46 (Moberly)	Brooke's Sallust Jugurtha 83
Latin Verse.	Ovid Fasti, vi. 1-500 (Hallam)	Ovid Fasti, iii., Selections (Hallam)	Taylor's Ovid, Eleg. Sel. xvii.-xxiii.
English Subject.	Shakspeare, Richard III. (Clar. Press)	Shakspeare, Henry V. (Moberly)	Merchant of Venice
Tutor Subject.	Ovid Fasti, vi. 1-500 (Hallam)	Ovid Fasti, iii., Selections (Hallam)	—

WINTER TERM.

GREEK PROSE.	Xen. Cyropoedia, vii. 1-4 (Goodwin)	Xenophon Anabasis, iii. 5-iv. 6	Xenophon Anabasis vii 1-5
GREEK VERSE.	—	—	—
LATIN PROSE.	Sallust Catiline, xxxix. -lviii. (Merivale)	Sallust Jugurtha, 5-31 (Burke)	Cæsar Bell. Civ. 15-65
LATIN VERSE.	Ovid Fasti, i. 1-336 (Hallam)	Ovid Fasti, iii. 670-iv. 232 (Hallam)	Taylor's Ovid Selections 24-27
ENGLISH SUBJECT.	Northern Europe, 1-9, 66-149 (Moberly)	Geography, North America and part of Asia (Clyde)	Moberly's Southern Europe
TUTOR SUBJECT.	Ovid Fasti, i. 1-336 (Hallam)	Ovid Fasti, iii. 670-iv. 232 (Hallam)	Taylor's Ovid Selections 24-27

LOWER MIDDLE.

LENT TERM.

	1884.	1885.	1886.
GREEK PROSE.	Herod. Stories in Attic Greek, Rhampsinitus and Oroetes (Phillpotts)	Xenophon Selections, i, 4, 5 (Phillpotts)	Xenophon Easy Selections 24—49
GREEK VERSE.	—	—	—
LATIN PROSE.	Cæsar Bello Gallico, vii. 42-83 (Moberly)	Cæsar Bello Gallico, iii.7-iv 7 (Moberly)	Cæsar Bell. Gall vii. 1-41
LATIN VERSE.	Ovid, Elegiacs, xvii. xix. xx. (Taylor)	Ovid, Elegiac Selections (Taylor)	Taylor's Ovid xiii. xiv.
ENGLISH SUBJECT.	Shakespeare, Julius Cæsar	Shakespeare, Henry IV., pt. 1 (Hunter)	Clyde's Geography 475-519
TUTOR SUBJECT.	—	—	—

SUMMER TERM.

GREEK PROSE.	Xenophon, Selections, i.1-3 (Phillpotts)	Xen. Selec. 14-end (Phillpotts); Herod. [Stories, i. ii., Rhampsin. & Polycrat	Xenophon Easy Selections 49-72
GREEK VERSE.	—	—	—
LATIN PROSE.	Cæsar Bello Gallico, i. 1-33 (Moberly)	Cæsar Bell. Gall. iv. 10–v. 10 (Moberly)	Cæsar Bell. Gall. vii. 57–90
LATIN VERSE.	Ovid, Selections xxi.-xxiii. (Taylor)	Ovid, Elegiac Stories, vii.-ix. (Taylor)	Taylor's Ovid, Elegiac Selections xv. xvi. (190 lines)
ENGLISH SUBJECT.	Shakespeare, Richard III. (Hunter)	Shakespeare, Henry V. (Hunter)	Midsummer Night's Dream
TUTOR SUBJECT.	—	—	—

WINTER TERM.

GREEK PROSE.	Xen. Selections, i. 43–69 (Phillpotts)	Stor. Marath. & Rhampsin. (Phillpotts); Xen. Sel. ii. iii. (Phillpotts & Jerram)	Xenophon Easy Selections viii.
GREEK VERSE.	—	—	—
LATIN PROSE.	Cæsar Bello Gallico, ii.-iv. (Moberly)	Cæsar Bello Gallico, v. 12-end	Cæsar Bell. Gall. ii.
LATIN VERSE.	Ovid, Elegiacs, i. ii. (Taylor)	Ovid, Elegiac Select., x.-xii. (Taylor)	—
ENGLISH SUBJECT.	Northern Europe, iv.-ix. (Moberly)	Geography, North America, 433-478 (Clyde)	Clyde's Geography, British Isles
TUTOR SUBJECT.	—	—	Taylor's Ovid 17-20

SHELL.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Stories in Attic Greek, 84-114 (Morice)	Stories in Attic Greek, 189-211 (Morice)	Morice's Stories in Attic Greek 118-151
Greek Verse.	—	—	—
Latin Prose.	Palæstra Latina, 175-206	Palæstra Latina, 71-76, 164-178	Palæstra Latina 208-224
Latin Verse.	—	—	—
English Subject.	Shakespeare, Julius Cæsar	Geography of Africa	Geography, America, Australasia
Tutor Subject.	—	—	—

SUMMER TERM.

Greek Prose.	Stories in Attic Greek, 118-152 (Morice)	Stories in Attic Greek, 212-241 (Morice)	Xenophon Easy Selections 1-17
Greek Verse.	—	—	—
Latin Prose.	Palæstra Latina, 207-240	Palæstra Latina, 171-186	Palæstra Latina 224-237
Latin Verse.	—	—	—
English Subject.	Shakespeare, Richard III.	Shakespeare, Henry V. (Hunter)	Midsummer Night's Dream
Tutor Subject.	—	—	—

WINTER TERM.

Greek Prose.	Stories in Attic Greek, 157-188 (Morice)	Stories in Attic Greek, 96-117, 242-52 (Morice)	Xenophon Easy Selections viii.
Greek Verse.	—	—	—
Latin Prose.	Palæstra Latina, 57-70	Palæstra Latina, 191-207	Palæstra Latina, 237-254
Latin Verse.	—	—	—
English Subject.	Geography of Western Asia	Geography, North America (Clyde)	Clyde's Geography, British Isles
Tutor Subject.	—	—	—

LOWER SCHOOL. IV. III. II. AND I. FORMS.

LENT TERM.

	1884.	1885.	1886.
Greek Prose.	Selections, Græcula, and Arnold's Greek Exercises	Græcula, i. 49-94 (Heatley)	Greek Accidence to λυω Morice's Arnold, L. Græcula
Greek Verse.	—	—	Marmion i., Roman Hist. to 367 B. C. Bennett's First Lat. Reader, selec.
Latin Prose.	Selections from Smith's Principia ii.	Fabulæ Faciles, 21-76	Knight's Seven Kings of Rome 22-36
Latin Verse.	—	—	—
English Subject.	Lang's Geography, British Empire, 14-66	History, Edward VI.-Charles I.; Geography, England, end Glo'ster (Lang); Divin., Ezra, Neh., St. Mark, i.-v.	Lawson's Geography, half Europe 31-46
Tutor Subject.	—	—	—

SUMMER TERM.

GREEK PROSE.	Græcula, 55-85	Græcula. 97 - 119 (Heatley)	Heatley's Græcula
GREEK VERSE.	—	—	—
LATIN PROSE.	Principia Latina, ii. 24-32	Fabulæ Faciles, pp. 55-81, parts ii. iii.	Seven Kings of Rome
LATIN VERSE.	—	—	—
ENGLISH SUBJECT.	Lang's Geog. British Empire, 131-174	Geography, British Empire, Scotland and Wales (Lang)	Geography of Asia, Marmion ii. iii.
TUTOR SUBJECT.	—	—	—

WINTER TERM.

GREEK PROSE.	Græcula (Heatley)	Graecula, 1-12	Heatley's Graecula 12-27
GREEK VERSE.	—	—	—
LATIN PROSE.	Principia Latina, ii.	Seven Kings of Rome, 1-18 (Knight)	Gradatim 77-93, Easy Latin Stories 107-126
LATIN VERSE.	—	—	—
ENGLISH SUBJECT.	Geography of Australia, New Zealand, Canada; History, Henry IV.-VIII.	Geography of Europe, 1-30 (Lawson)	Lawson's N. America, Marmion iv., part of v.
TUTOR SUBJECT.	—	—	—

MODERN, 1886.

LENT TERM.

	SIXTH, TWENTY, FIFTH, LOWER FIFTH.	UPPER MIDDLE I. AND II.	LOWER MIDDLE AND SHELL.
GREEK PROSE *or* (*Mod.*) FRENCH.	Bowen's Jena 1-43, Tarver's Selections from French Plays	Histoire d'un Paysan 1-60	Bertrand du Guesclin 1-38
GREEK VERSE *or* (*Mod.*) GERMAN.	---	Set 1, Wm. Tell. Set 2, Burcheim's Ger. Rdr. Set 3, Ahn's Ger. Course	---
LATIN PROSE.	Capes' Livy xxi. 1-30	Sallust Jugurtha 31-68	Seven Kings of Rome 1-26
LATIN VERSE.	---	---	—
ENGLISH SUBJECT.	Milton's l'Allegro, Il Penseroso, Lycidas	Milton's l'Allegro, Il Penseroso, Lycidas	Goldsmith's Traveller. Clyde's Geography, British Isles
TUTOR SUBJECT.	—	---	—

SUMMER TERM.

GREEK PROSE *or* (*Mod*) FRENCH	Hugo's Hernani	Histoire d'un Paysan 63-110	Bertrand du Guesclin 43-83
GREEK VERSE *or* (*Mod*)GERMAN	*Set* 1, Schiller's Wm. Tell, pt. of ii. iii. *Set* 4, German Rdg. Bk.	*Set* 2, Burcheim's Ger. Rdr. 23-42, *Set* 3, Ahn's Ger. Method, select	—
LATIN PROSE.	Capes' Livy xxi. 31-55	Brooke's Sallust Jugurtha 70-101	Seven Kings of Rome second half
LATIN VERSE.	—	—	—
ENGLISH SUBJECT.	Prologue to the Canterbury Tales	Tennyson's Idylls, Coming of Arthur, Geraint and Enid	Goldsmith's Traveller, Geography, British Possessions
TUTOR SUBJECT.	English Hist., Henry VI., Henry VII. Clyde's Geography, pt. of Europe	—	—

WINTER TERM.

GREEK PROSE *or* (*Mod.*) FRENCH.	UnVene l'EauScribe i. iv., About L' Homme a C. Corneille, Cassee	Histoire d'un Paysan 185-211, 311-342	Fenelon's Fables
GREEK VERSE *or* (*Mod.*)GERMAN.	Schiller's Wm. Tell, part of iii. iv.	—	—
LATIN PROSE.	Capes' Livy xxii. 1-22	Cæsar Bell. Gall. viii.	Cæsar Bell. Gall. ii.
LATIN VERSE.	Student's Hume, Henry VIII., Elizabeth	—	—
ENGLISH SUBJECT.	Spencer's Faery Queene, i. 1-4	Shakespeare's Henry VIII.	Poetry for the Young iii.
TUTOR SUBJECT.	Clyde's Geography, pt. of Europe	—	—

IS VOLAPUK A DEAD LANGUAGE?

A very legitimate means of infusing life into the teaching of Latin elements is the use of conversation, or colloquy, in that language. In a recent number of *Education* Prof. D'Ooge warmly commends this practice. We approve his suggestions, as we did those of Prof. Sauveur, made several years ago and to precisely the same effect. In his enthusiasm Prof. D'Ooge goes so far as to announce that after all Latin is not a dead language.

We are ready to hear almost any possible thesis denying our cherished convictions and offering new principles of logic whenever an intense advocate of classical studies broaches this theme. That Latin is dead we have heard denied before. Deadness is evidently a disagreeable quality to predicate of the chief staple of a liberal education. Latin shall live therefore, and if not elsewhere in human society, at least in the schools.

Perhaps, at this moment, Latin is renascent, from pedagogic impulse. If this is so, Volapuk is surely nascent. At any rate it is known already of a few, who are filled with propagandist zeal, and have already had a banquet with the *menu* and the colloquy in the new tongue.

But even though Volapuk seems to be just coming into being, and Latin is taught in thousands of schools by tens of thousands of teachers, both are dead languages by the same good right. Both are dumb, unpronounced languages, in which no child hears its mother speak, in which no man expresses an earnest desire or communicates an unpremeditated thought.

The criterion of life or death in a language is, first of all, the question,—is it spoken as any man's natural tongue? Has it a pronunciation? Has it a tongue at all, or is it a tongueless language? The life principle of language is utterance, speech, voice. Without these a language is dead We hardly expect the enthusiastic anatomist to claim for the cadaver before him that it is not dead, or the zealous geologist to insist that his fossils are alive because they speak so eloquently to him.

The modern languages were once taught as if they also were dead. Conversation was deemed of small moment. To read the printed page was the all-important thing. Pronunciation went wide of the mark. Some teachers were careless about their French sounds who made it almost a religious scruple to enforce every item of the artificial rules for Latin pronunciation laid down in somebody's grammar. But modern language teaching is undergoing a great revival. The anomaly of unspoken speech, of a tongueless tongue, of an unheard sound, is dropping into disrepute. The ancient languages also catch the new spirit, and they also must be put through their motions. But if they are in reality living languages, we submit that the governing body of every classical school should insist on procuring for the teaching of them a certain proportion of native instructors, or, if this is impracticable, that only those Americans should be engaged who have been trained in Latin-speaking countries.

INTERCHANGE.

Communications upon any educational topic are solicited, and may be addressed to G. R. CUTTING, AUBURN, N. Y. *The subject for September will be: College Fraternities, pro and con.*

THE LEGITIMATE DUTIES OF A PRINCIPAL; OR, HOW CAN A PRINCIPAL BEST DIVIDE HIS TIME BETWEEN GENERAL SUPERVISION, CLASS-ROOM VISITATION, OFFICE-WORK, AND CLASS INSTRUCTION.

The object of this Interchange is a practical one, namely to set principals to thinking as to whether they are performing their legitimate duties as principals to the best of their possibilities. As class-room teachers, the principals are not commonly derelict as to their full duties.

From the correspondence received on this subject, and from an examination of the programs of work of a large number of High Schools, Academies, and especially Union Schools, we are convinced that a large number of principals are spending too much time, mental power, and nerve-energy in teaching, and often with small classes, to the positive detriment of their schools at large. It is significant that there is scarcely a principal but what substantially apologizes for his present program of daily work, usually in some such words as these: "I hope to be blessed with more favorable circumstances next year." "Circumstances" seem to be the *bete noir* of the principal; yet, with all due allowances made, it may well be questioned to what extent a principal should allow himself to be fettered, a slave to circumstances. We teach our pupils that by planning, push, and perseverance they can bend the circumstances of life quite largely to their will. The live principal can himself often do more in this line than he at first believes.

Principal means principal; and the word in every well-regulated school, as well as in Webster, means "one who possesses or exercises chief authority." It is self evident that if boards of education and public sentiment hold him responsible for the exercise of this authority, the principal must have not only a voice in shaping the programs of daily work, but equally must he be provided with the facilities to make a proper program.

The result of this inquiry leads to one general conclusion and four points of caution:

General Conclusion : *The average school program of daily work is greatly overcrowded.*

This seems to be true of all teachers, but is particularly true of the work assigned to the principal. The smaller Union Schools of New York State seem to be suffering particularly from over-crowded programs. The principals allege, in explanation, that their boards of education will not provide enough teachers to properly do the work required ; hence a few have to do the excess of work that should be allotted to additional instructors. "Have you ever shown your board of education a model program of work for your school ; shown them just how you would like to have all classes arranged, with what teachers, etc.?" we inquire. "No, but then I know that they wouldn't grant it," is the reply. Some principals may easily go to the opposite extreme ; but here evidently is a principal who does not magnify enough his office as principal. In such a community the principal is responsible if he does not lead sentiment in the board of education. We would not have him attempt to guide by ruling, but would have him rule by guiding. No principal has a right to be content till he has made of his school the best school possible under the circumstances. A seemingly blind committee will see, sooner or later, a common-sense proposition if wisely and discreetly laid before them.

The programs of daily work submitted show that some principals of Union Schools are teaching as many as thirteen classes each day in addition to their other duties as principal. Shades of Hercules ! A board of education that tolerates that amount of teaching-work in a principal ought to be indicted ! How could a principal properly prepare himself to teach each day so many branches of academic study ? Any competent authority would say that such a feat would be strictly impossible under any circumstances whatever. Asking this question directly of one of these over-worked principals, he replied "by studying nearly every night till midnight." How we pitied his pupils ! He too ought to have been indicted for teaching hygiene and practicing suicide.

First Caution : *Don't do too much class-room teaching.*

It would improve a host of schools fifty per cent if the principal would drop out of his daily program of work one-half of his own teaching work ; provided, in the time thus gained he would find out just what good and poor teaching is being done in the various departments of his school ; if he would find out just how subordinate teachers are teaching the various subjects ; how they are conducting recitations, maintaining discipline, etc., and would utilize all his knowledge thus gained for the general interests of his school. Many principals have confessed to the writer that they were unable to testify as to the actual teaching abilities of their assistant teachers except from their general reputation with scholars and parents. We know of one principal who retained his position a dozen years simply because he was a good class-room teacher. He taught right along all the school hours of the day, and paid the least attention possible to his other legitimate duties as principal. He did retain his position, but the school subsequently paid dearly for that kind of management. If the principals who are tempted to err on this line would try an experiment, for one year, of cutting down their teaching time, would sacrifice quantity to quality in what teaching work they do, we are sure that they would reap a satisfying reward in the leap forward their schools would take in their general efficiency and progress. Do not be afraid of that cheap taunt sometimes uttered by ignorant critics that you, as principal, are "not doing anything," because you do not teach a class all the time. A good general does his best work, not exclusively in the field of action; but in the duties of planning campaigns, advising and counseling subordinates, and inspecting the divisions of the army. The competent principal must in a degree imitate the successful general.

SECOND CAUTION: *In teaching reach as large classes as possible.*

A large number of principals are evidently devoting their personal attention in teaching to a few individuals, often to a half-dozen or so pupils, generally to those preparing for college. Not to instruct this class would be a great mistake; for a principal to devote his efforts to these exclusively is a still greater one. The principals who have a broad, firm grasp on their schools are reaching all grades of work in their teaching, so as to get, as nearly as possible, personal contact with every pupil in school. In some instances it is only through a single exercise a week,—as in Latin composition with the large beginners' class in Latin. In the case referred to, several boys were reached and inspired to pursue a full classical course who were on the point of leaving school in the absence of just that inspiration which a principal alone could give. A principal of a small Union School quite often thinks he must himself teach all the Greek and Latin classes. These include perhaps ten or fifteen pupils. He wonders meanwhile why he does not have a firmer grasp on his whole school. The women's colleges nowadays are graduating each year large numbers of young lady teachers who are excellent instructors in ancient as well as modern languages, who are ready to teach for moderate salaries. Any principal can, under ordinary circumstances, secure in the Board of Education the election of such assistants, so that he can himself give an adequate amount of time to the large classes of his school; for, be it remembered, there is an influence that can only be won through personal contact in personal teaching.

THIRD CAUTION: *Increase general supervision and class-room visitation as far as possible consistent with other interests.*

The successful principals are those who survey the whole field; who keep an eye to water-closets, play-ground, and furnaces, as well as halls, recitation and study rooms. But here is a principal of a large Union School, who from his program of daily work assigns himself but one half-hour division of each day to visitation of other departments of his school and the class recitations of his subordinate teachers; another assigns a similar period each half-day [this seems to be a quite usual allotment]; while some claim that it is absolutely impossible to give any time to the school as a whole, except as some special case of discipline needs attention. One principal suggests a plan whereby through a half-hour of each half-day, devoted to supervision, he may keep his whole school within his grasp. He assigns a class to himself for each teaching-division of the day; but dismisses one of his recitations every half-day, to visit other rooms; taking care to adjourn a different class each half-day, for the sake of the pupils as well as to thereby reach all hours of work with all teachers in his school. While no detailed program can be made, while local circumstances must always control, these local circumstances should in all cases be bent to a conformity with this general principle, that every class and every teacher should often come under the supervision and helpful criticism of the principal. The loyal and earnest teachers always welcome the aid and suggestions of a truly helpful principal, albeit these suggestions are given at the right time and place, and in the right spirit. And the presence of an earnest principal, with a helpful spirit, visiting a class not his own—if his visits are not so rare as to seem exceptional—must necessarily be encouraging and stimulating, as well as directly beneficial; but a subsequent private conference of principal and teacher is essential to reap the full fruits of a principal's visit to a school-room.

FOURTH CAUTION: *Devote the least time possible to merely clerical work.*

A large number of principals are free to confess that they spend far too much valuable time in adding columns of figures, in making averages and reports of questionable utility,—time that should be spent in a higher class of professional work. It must be conceded that this, except in its oversight, is indeed "cheap work." We believe it pays the least of any work done by the principal. A certain amount of statistics, etc., is necessary; but a vast deal of a principal's clerical office-work can be more satisfactorily done by cheaper labor. As one principal pointedly puts it, "I am paid $10 per day for my services as principal. Accurate young-lady accountants stand ready to do this clerical work for twelve cents per hour; and they will do it far better than I can. My board and I have concluded that the principal should spend his time in more important duties,—work that he only can do." While it is conceded that to keep the reins well in hand the principal must do some and look after the whole of his clerical work, the experience of the most successful principals confirms the opinion that it is better for the interests of the school at large that the principal should include as little as possible of the duties of clerk and registrar among his legitimate duties. This caution may be of special import in Union Schools where the principal is both principal and superintendent.

PRINCIPAL O. D. ROBINSON, ALBANY HIGH SCHOOL.

In deciding how a principal can best divide his time, much must depend upon the size of the school, the courses of study, and the number and ability of the assistant teachers, etc. Suppose, however, in a High School numbering from four hundred to six hundred students, and well equipped with "assistants," that a principal is so favored by Providence and "The Board" that he may exercise his own judgment in the matter, I should then answer somewhat as follows: The principal should take charge of all general exercises when all the scholars are assembled in one room,—such as opening exercises, exercises in elocution, singing, etc. He should conduct at least one recitation, as a rule, in the senior class daily. In no other way can he become acquainted with individual students, and in no other way can he impress his own personality upon them. In addition to this, the principal should meet the senior class once every week (twice would be better), for the purposes of general instruction,—sometimes in composition and such kindred topics as synonyms, orthoëpy and the like, and sometimes on such general subjects as "Congress and its Powers"—a suitable topic for December—or "The Duties of Citizenship"—a suitable topic for election week—and so on through a list which could be extended almost indefinitely.

Beyond this, I believe that a principal, to secure the best results in a school such as I have supposed, should give his time and energy to supervision, oversight, and direction, rather than to class-room work. Everything, from the work of the highest assistant to that of the janitor, should come under his inspection and guidance. This oversight and direction should never be of the obtrusive, or noisy, nor, indeed, of the conspicuous type. It should never take the form of meddling or fault-finding. No division of time, no routine, no "methods" can be even outlined for proper supervision. It should be of such a kind as to impart confidence to timid and self-distrustful teachers, to give courage and hope to dull but deserving pupils, and to inculcate a genuine school pride, or "*esprit de corps*," in every individual connected with the school. Such supervision demands time and absorbs energy; but the harmony and completeness which it secures are no less valuable to the individual pupil than to the corporate school.

PRINCIPAL J. G. ALLEN, ROCHESTER FREE ACADEMY.

With reference to general supervision, class-room visitation, and class instruction, in the Rochester Free Academy, the principal's time is about equally divided. More time than our present circumstances permit should be given to class-room visitation, with a view to the subsequent discussion of methods by the faculty. I am persuaded that class-room visitation should be the chief business of the principal; and I think the near future will show circumstances so modified in our school that more time will be given to the criticism of what is done in the class-rooms than to general supervision, and the principal's class-room instruction combined. Our office-work cannot be done during school hours.

COMMUNICATIONS,

NEW YORK STATE TEACHERS' ASSOCIATION PRELIMINARY ANNOUNCEMENTS.

1. The forty-second annual session will be held at Elizabethtown, July 6 to 8, 1887.

2. The following persons have agreed to present papers on topics mentioned: Supt. Thos. M. Balliett, Reading, Pa., (Some application of psychology to teaching); Supt. L. C. Foster, Ithaca, N. Y., "The Basis and Methods of Promotions"; Prof. Jas. M. Milne, Cortland, N. Y., "Improved Methods of Education" (report); Supt. J. W. Kimball, Amsterdam, N. Y., "Condition of Education," (report); Prin. John D. Wilson, Syracuse, N. Y., "Duties of Principals and Superintendents to Their Subordinates." Miss K. R. Burns, New York City, "The Industrial Exhibit," (report); Comr. Leonard T. Cole, Port Leydon, N. Y., "Local Teachers' Associations"; Supt. Andrew McMillan, Utica, N. Y., Necrology, (report); Dr. L. Sauveur, Philadelphia, Pa., will teach a class in French before the association, using the "natural method," and will then discuss the method by answering any question that may be asked by members of the association.

3. One afternoon (probably Thursday) will be given up to the meetings of the various sections into which it is expected to divide the association for one-half day, viz., primary and common schools, secondary schools, professional training of teachers, and supervision. Prominent and able men in each of these lines of work will organize the programs and preside over the meetings of these sections.

4. An exhibit of industrial work from the schools of the state will be organized under the direction of the following committee, of whom further information can be had: Miss K. R. Burns, of University Place, New York City, chairman, and in special charge of general industrial work; Prof. E. C. Colby, 15 Exchange St., Rochester, N. Y., drawing; Prof. John F. Woodhull, New Paltz, N. Y., home-made apparatus for use in teaching the natural sciences.

5. Fully one-half of the time of the sessions will be held open for full and free discussions of the papers read.

6. The "D. & H." railroad will sell tickets from any station in this state on their roads to Elizabethtown and return for three cents per mile one way. Arrangements are making with other railroads for the usual reduction on tickets.

7. Excursions through Lake George to Ausable Chasm, White Mountains, the Thousand Islands, Montreal, &c., will be arranged for at very low rates.

8. At Elizabethtown board can be had at "The Windsor" and "The Mansion House" for 300 at $1.50 per day, at "The Valley" for 75 at $1.00 per day, and at private homes for any number at 75 cents to $1.00.

GEORGE GRIFFITH, Pres.

NEW PALTZ, N. Y., April 6, 1887.

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

THE ACADEMY *is not issued during the months of July and August.*

With this issue of THE ACADEMY, we send in a separate enclosure Prof. Hale's pamphlet on "The Teaching of Latin," to those of our subscribers who we think will be specially interested in it. There has been an unavoidable delay in the publication of this article. Its value, however, is on that account in no way diminished.

Should any of those subscribers specially interested in the teaching of Latin fail to receive it, they will please notify us of the fact.

The semi-annual summer meeting of the Associated Academic Principals of the State of New York will be held on Tuesday, P. M. of Convocation week, at the State Capitol at Albany.

G. R. CUTTING, President.

H. W. CALLAHAN, Secretary.

We trust that large numbers of our academic teachers may this year convene at Chicago at the meeting of the National Association, July 12 to 15. The Department of Secondary Instruction should especially enlist the interest and attendance of all instructors in secondary schools.

There may not be much in the ways of Rugby that is practicable for introduction into American schools, but there is one respect in which we may well learn from them. An examination of the outline of "Work Done at Rugby," in the last three years, which we print elsewhere in this number,shows the range of reading covered in the school. It would not be hard to find teachers in our schools who have read four books of Cæsar and six books of Vergil with classes a dozen times in the last twelve years, and who during that time have read little other Latin. The effect of this on a teacher's enthusiasm and knowledge can be imagined, but it can hardly be approved. In this respect our English brethren are wiser than we. To bring about a change, the colleges should take the initiative, by making a qualitative test on some small portion of work and allowing a wider range in the books read. We hope this matter will come up for discussion at the Regents' Convocation in July.

The Worcester (Mass.) school report is interesting as usual. The growth and prosperity of the city are reflected in the schools generally, but notably in the high school, which now contains nearly 700 pupils. While many colleges and some secondary schools are studying the question how they may attract students, the high schools of our cities are having enough to do to plan how to accomplish for their growing frequentation not only the objects for which they were designed but the other ends made necessary by the new relations in which educational institutions stand to each other and to society. The Worcester high school professes to fit for college, for a technical school and for a normal school, and also to give a well-rounded education that has no reference to a following course of study. The importance of these vast institutions in American civil life is not yet fully understood. The extent to which they shape the destinies of individuals is known to but the few who have had the opportunity to trace the careers of pupils during a generation. There should no longer be any question of defending the high schools. They have developed themselves out of American needs in the most natural manner, and are not excrescences on our educational system, but vital organs of it, to whose welfare the best thought of theorists and the best work of practical men should be devoted. The questions of high school polity now needing to be settled concern division and specialization of function. A college may have an infinite number of courses, but a school must have unity of aim and simplicity of organization. The more numerous the attendance, the more the diverse purposes can be isolated, and the more vigor of administration secured. Worcester affords the finest field in New England for the next steps in the evolution of the great public secondary school. It is profoundly to be hoped that men of the requisite insight and breadth of view will be found to grapple with the problem.

A piquant story told by Mr. Marble we let him present in his own words :—

> "There are certain fitting schools which seem to have facilities with which no public High School and no ordinary fitting school can compete, as the following well authenticated instance will show :—
>
> A certain parent had two sons, one of whom pursued his preparatory studies in a High School ; as one of his studies he read 3,000 lines of Ovid, the requirement in that author at Harvard, I believe ; and he entered without conditions. His brother pursued his preparatory course at an academy, a fitting school, endowed by a distinguished man, in a famous town, in the classic environs of Boston, presided over by an eminent son of an illustrious sire. This boy read 50 lines of Ovid ; and he also entered Harvard without conditions in that study. The parent commiserated the "poor fellow" who was obliged to read the 3,000 lines in the High School with no better result, as it appeared, than the other boy's reading of 50 lines. The discipline, the thorough study went for nothing ; the end sought was admission to Harvard. Now it happened that the candidates were examined in the 50 lines read at the fitting school ! It is not here suggested that there was any collusion between the examiners and the teacher. The accident of the examination's hitting that particular 50 lines is not the less remarkable ; and a teacher who can happen to hit so accurately has facilities, as intimated above, which no High School is likely, or ought to be expected to possess. This is the class of teachers who are admirably adapted for fitting schools ; and if possible they ought in all cases to be secured for those schools."

We had occasion last month to present to our readers the opinion of the philologist, Prof. I. N. Madvig, as to the disciplinary value of the study of Latin. We herewith let another of the heroes of modern classical philology, Prof. August Boeckh, speak for himself on the same topic. The name of Boeckh will be quite as well known to our readers as was that of the illustrious Latinist. Every devotee of Greek letters owes something to the author of the *Public Economy of the Athenians*. That Boeckh may appear properly heralded, we let him be introduced by Karl Mager, the champion of the German Real School system, and the advocate of reformed methods of linguistic teaching. Translation of either author seems needless.

"Wer zu den neuen Sprachen noch die alten lernt, der ist freilich am besten daran. Wollte aber noch einer sagen, das Studium der griechischen und lateinischen Sprache habe wegen des vollkomneren Organismus dieser Sprachen sine grössere formelle, bildende Kraft als das Studium der neueren Sprachen, so könnte man sich das allenfalls gefallen lassen, wenn es auch nur halbwahr ist. Die Formenlehre der synthetischen Sprachen ist vollkommener; es stecken aber in der deutschen und frauzösischen *Syntax* Geheimnisse, von denen die griechische nichts weiss. Ueberhaupt ist es mit dem *formalen* Nutzen eines Studiums, von dem die Humanisten seit Pestalozzi so viel reden, eine eigne Sache, und ich bin so frei, zum guten Ende ein Wort von Boeckh zu citiren:"

"Qui illa studia, ob eam quam dixi causam (*Historische Bildung*) in scholis recepta, retinere in iisdem eorum capti praestantia cupiebant, cum docere vellent, quare id fieri oporteret, postquam prior illorum usus fructusque esset abolitus, acriter circumspicientes non potuerunt aliud reperire, quam formalis quae dicitur eruditionis causa Graecas Romanasque litteras et maxime linguas esse tractandas. Hoc ego tantum abest ut mihi persuadeam, qui praesertim non videam homines Graecam Latinamque grammaticam imprimis callentes caeteris mortalibus animo bene conformato longe praestare, ut quamvis mentibus formandis idonea materia sit, expellendas ex scholis antiquas litteras censeam nisi potior causa supersit, quam ob rem illae deligantur."

*BOOKS RECEIVED.**

American Commonwealths. *New York. The Planting and Growth of the Empire State.* By Ellis H. Roberts. In two volumes. Boston and New York: Houghton, Mifflin & Company. The Riverside Press, Cambridge. 1887.

Talks About Law. A Popular Statement of What Our Law is and How it is Administered. By Edmund P. Dole. Boston and New York: Houghton, Mifflin & Company. The Riverside Press, Cambridge. 1887.

Elementary Treatise on Determinants. By William G. Peck, Ph. D., LL. D., Professor of Mathematics, Mechanics and Astronomy in Columbia College. New York and Chicago: A. S. Barnes & Company. 1887.

A Guide for Learning the German Language According to the Natural Method. Newly arranged and with a complete German-English Vocabulary. By Edwin F. Bacon, Ph. B., Professor of Modern Languages at the Hasbrouck Institute and of German at the Sauveur College of Languages. New York: Clark & Maynard, Publishers, 771 Broadway and 67 and 69 Ninth Street. 1887.

Field, Wood and Meadow Rambles. By Amanda B. Harris. Illustrated by G. F. Barnes. Chicago: The Interstate Publishing Company. Boston: 30 Franklin Street.

*Any of these books may be more fully noticed hereafter.

Bruder Grimm, Kinder and Häusmärchen. School Edition. Selected and Edited, with Introduction, Notes and Vocabulary. By Charles P. Otis, Ph. D., Professor of Modern Languages, Massachusetts Institute of Technology. New York: Henry Holt & Company. Boston: Carl Schoenhof. 1887.

A First Course of Physical Laboratory Practice. By A. M. Worthington, M. A., late Assistant Master of Clinton College. With illustrations. Boston: John Allyn, Publisher. 1887.

First Book of Chemistry. A Course of Simple Experiments for Beginners at Home and in Primary Schools. By Mary Shaw Brewster. New York: D. Appleton & Company. 1887.

Elements of English. An Introduction to English Grammar for the use of Schools. By George Hodgdon Ricker, A. M. Chicago: The Interstate Publishing Company. Boston: 30 Franklin Street.

The Riverside Literature Series. Number 26. *The Golden Legend.* By Henry Wadsworth Longfellow. With Notes by Samuel Arthur Bent, A. M. In two parts. Part II. Boston: Houghton, Mifflin & Company. 1887.

The Riverside Literature Series. Number 27. *The Succession of Forest Trees and Wild Apples.* By Henry D. Thoreau. With a Biographical Sketch by Ralph Waldo Emerson. Houghton, Mifflin & Co. 1887.

Suggestive Lessons in Language and Reading for Primary Schools. A Manual for Teachers. By Anna B. Badlam, Rice Training School, Boston, Mass., author of "Little Folks' Alphabet of Number." Boston: D. C. Heath & Company, Publishers. 1887.

An Introduction to Attic Greek. By Jabez Brooks, Professor of Greek in the University of Minnesota. New York: Henry Holt & Company. 1887.

Deutſche Novelletten Bibliothek. For School and Home. Selected from the best Modern writers and with Etymological, Grammatical and Explanatory Notes. By Dr. Wilhelm Bernhardt. Volume I. Boston: D. C. Heath & Company. 1887.

Natural Science Note Book Number 1. *Mineralogy.* By W. S. Sweeny. New York: A. Lovell & Company. 1887.

Text Book of Zoology for Junior Students. By Henry Alleyne Nicholson. Fourth Edition. New York; D. Appleton & Co. 1887.

Nicholson's Zoology has been before the public for a long time, and furnishes an ample introduction to the leading groups of animal life. The reputation of the author is a sufficient guaranty for the reliability of the work. Properly used it would be a valuable text-book for colleges, and as a work of general reference, it will be valuable for those who cannot afford the larger, more expensive, as well as more exhaustive and reliable work of Claus. The general plan of the work suggests one extreme of method, that of the text-book markedly in contrast with the laboratory methods now so much in vogue. In the preface to the first edition of this work, the author used these words: "If Natural History is ever to be taught in schools with any satisfaction to the teacher or any profit to the learner, it must be taught as systematically and as unflinchingly as Mathematics and Greek have been taught for many generations." While we subscribe heartily to this doctrine, we cannot agree with the dogma that zoological teaching should consist largely of memorizing either details of structure or systems of classification. To a very large extent a student must be brought face to face with structure, function and classification, and thus acquire knowledge by practical acquaintance with animals themselves.

The work is well illustrated, many new cuts appearing in place of some of the poorer ones of the previous editions. Altogether the book is a valuable addition to our list of text books, and if judiciously used with abundant illustration by actual specimens, it will be a helpful and valuable manual of instruction.

The Ruling Principle of Method applied to Education. By Antonio Rosmini Serbati. Translated by Mrs. William Grey. Boston: D. C. Heath. 1887.

Written by Rosmini in 1839, this work was first published, still incomplete, after his death, in 1857. It has thus been before the Italian people for thirty years. In so long a period any book not of the very first order of excellence has time to outlive any popularity it may ever have had and to fall into oblivion. Such seems to have been the fate of the book which Mrs. Grey has translated, and which she may be said to have rescued from the limbo of old and forgotten literature that it may try its fortunes with a new generation and in other lands. It is well that there is a Rosminian religious order that makes the study of the writings of their founder a sort of cult, even though this devotion may result in asking busy men's attention to matter that else had interested only antiquarians.

Considering how good, how impressive in their amiable sincerity and simplicity, the doctrines of Rosmini are, it seems strange that we get no account of him in any German, French or English history of pedagogy. He is unknown to all the great German cyclopædias and histories. So much the worse, of course, for the cyclopædias and histories. Mrs. Grey has put them to shame, and their next editions will respect Rosmini.

We could wish, however, that the Italians showed more signs than they do that they know their great countryman, and that the Italian pedagogists of to-day regarded him more generally as a classic in their department. One finds no trace of Rosmini *as an educational writer* until one comes to Celesia, the historian of Italian pedagogy, and to another one or two writers of less repute, who quote Celesia. In fact, the little more than one page of his 650 which Celesia gives to Rosmini, would seem to furnish abundant justification for Mrs. Grey's enterprise, did not the book itself, in its English form, reward and stimulate the reader in search of good doctrine.

We find Celesia's account of Rosmini's book so exactly expressive of our own opinion of it, that we quote it herewith entire.

"What is the natural method that governs the human mind in its spontaneous development? Is there a supreme law which is the source of all educational method, and how may this law be applied to the teaching of youth? In this consists, as everyone sees, the whole art and science of teaching. To the solution of this difficult problem one of the most vigorous intellects of the century devoted itself,—Antonio Rosmini. His work, published in 1857 in Turin, with the title,—*The supreme principle of method and some of its applications to human education*, although left incomplete by the author at his death, clearly reveals the thought of the profound philosopher. This supreme principle of method is thus formulated by him. Let there be presented to the mind of the child, first, the objects that belong to the first order of intellections; then the objects that belong to the second order of intellections; then those of the third, and so on successively, in such a way that we shall never presume to lead the child to make an intellection of the second order till we have first assured ourselves that his mind has made the intellections of the first order, and so on with regard to the intellections of the third, fourth and higher orders.–This same principle of method he expounded in other works of his and especially in his *Catechism*, which is arranged according to the order of ideas. This principle it is that controls and governs the entire didactic order. It may be summed up briefly as follows: Let truths be arranged in an ordered series, in such a way that those which precede shall not, in order to be understood, need those that follow.—

Having laid this foundation, Rosmini proceeds to make the practical application of it to childhood with such learning, such clearness of ideas, such power of analysis and such harmonious adjustment of the education of the mind with that of the heart, as place his pedagogic works among the most important that have ever seen the light. Germany, with all its learning, has really not a single book on didactic themes that can equal this. But how many among Italian educators can boast, not of having studied it, but even of having had it in their hands?"

Most American readers will find in the book some pages of rather dry and difficult psychology, but a general tone of religious fervor, of intellectual sweetness and priestly benignity that will be very attractive. It must not be expected that Rosmini will define and mark out, all ready for practical use, either the eras of child life or the intellections, suitable respectively for these eras, in such a form that school procedures can be planned from them. Whoever proposes to wrestle with questions of courses of study and school organization should come to his task in a Rosminian frame of mind; but the practical wisdom that plans for the next year or the next day needs the concreter guidance of men of experience.

The Philosophy of Words. A popular introduction to the science of language. By Frederic Garlanda, Ph. D. New York: A. Lovell & Co.

This neat little volume of 287 pp. is a sort of primer of comparative Philology,—in fact, a primary primer. On its title page it promises, as an introduction to the science of language, to be popular, and it is that,—very. Yet there is a place in the world for such a book as this proposes to be. The remarks of the preface are notably true: "It is astonishing how little is generally known, even by educated people, about language. * * * The main results of geology, physiology, chemistry and other sciences are already a possession of the public at large. Why should we not pay some attention also to this wonderful instrument, without which civilization, society itself, could not be possible?" Our own experience lends some support also to the assertion (p. 270): "I never happened to talk to a boy or girl, a gentleman or a lady, about any linguistic fact, whether etymological, comparative or phonetic, without their taking real delight in the argument." There is evidently a place for just such a book as Dr. Garlanda has in mind, a little less technical and special than Peile's primer of philology, more systematic, concise, and, we might hope, more trustworthy than any of Max Müller's compendiums of "parlour philology," less severe and argumentative than Whitney's admirable books, to say nothing of the magnificent profundity of Paul. How does this book fill that place? Our author has chosen his material well,—for his purpose; he has a keen sense for the picturesque, and selects cleverly the best points of view. He has evidently some degree of "teaching power"; he has a crisp and sometimes brilliant way of putting things. He summarizes and generalizes often well, always freely. We discover in him, in fact, one of those free souls whose capacity for broad generalization is not embarrassed by any special knowledge of the subject. Here we must take issue with him. He serves up all sorts of obsolete fancies taken from obsolete popular books, and duly reduced by him to spoon-food. He illustrates with picturesque etymologies, all too many of which are uncertain or false, and yet he lays great stress upon the importance of observing the definite phonetic laws, which are peculiar to each single language (cf. p. 69), and laughs to scorn the loose etymologies of the elders; cf. p. 186: "Those who talk about diseases and pretend to cure them without caring to know what the science of medicine has to say about them, are called quacks. Is it unjust if manipulators of lunatic etymologies are dealt with in the same way?" In defiance of all phonetic laws he derives Lat. *nomen*, Skr. *náman*, Gr. ὄνομα, etc., from the root *gna* (p. 99), *fugi* from the reduplicated *fug-fug-i* < *fu-fug-i* < *fu-ug-i* (p. 159), etc., etc. We are told that the word *father*, Gothic *fadar*, High German *vater* "corresponds normally, according to Grimm's law to Latin *pater*," etc. On the contrary this is an exception to Grimm's law, as the scheme on page 70 would show, and requires the help of a cross-law, known as "Verner's law" for its explanation. According to *Grimm's* law we should expect Gothic **fathar* and High German **Vader*. The statement concerning Grimm's law on page 69 ("that which rules the changes of consonants from one Indo-European language to another") betrays a misty conception of the position of this purely Germanic law in the economy of the Indo-European tongues. Free use is made of the old-fashioned "Indo-European idyls": the convenient root *duh* still deludes *daughter* to be a milk-maid, and a little juggling with *bhar* and *vas* and some free use of the imagination make out meanings for *brother* and *sister*, that are just about as applicable and as probable as any other meanings. A sudden fit of continence pronounces the origin of *wife*, which is perhaps surer than any of the others, "as yet obscure."

People too often make use of etymologies to force upon words meanings which the linguistic consciousness never involved in them, and of this misuse our author furnishes frequent examples; e. g., on page 240 he says: "The Anglo-Saxon *yard* and the Norse equivalent *garth* contain nearly the same idea as *ton*. Both denote some place *guarded* or *girded*." The identity of the word, however, with Latin *hortus*, Greek χόρτος, German *garten* shows this to be an old substantive, ages ago freed from the apron-strings of any verbal root. The English *garden* comes to us viâ France, and is not to be directly compared with German *garten*, as is implied at page 71. The author's phonetics (Chap. II.) are very feeble. An illustration is offered on page 79; if the English language should be adopted in a French province, he reflects that among other probable modifications, "many an *n* would become *strongly nasal*"! The classification of Indo-European languages given on page 67 is appreciable only as a take-off. Gothic is classed as "Low German"; the Letto-Slavic dialects are "Old Prussian, Ecclesiastical Slavonic, and the Russian language."

While the most startling defects of the book are to be found in its illustrative material, it must be noticed that throughout the entire treatment linguistic change is looked upon as a mere matter of phonetic change, and the all-important operation of psychological factors is left entirely out of the account. When educators out-grow the delusion that any one can teach a primary school, perhaps publishers will learn that not every clever penman can write a primer.

We give below a bibliography of current periodical literature on education and other topics which we think will be of special interest to teachers. The list includes only articles from periodicals not nominally educational. It covers the months of April and May of the current year, and will be continued in succeeding numbers. No claim of completeness is made, and the comments are purposely made as brief as possible. Articles of prime importance will, as a rule, be mentioned in *Notes*.

American State and the American Man, the. Albert Shaw. *Contemporary Review*, May.

Art, Tendencies of Modern. James M. Hoppin. *Yale Review*, May.

An address of M. Boulanger to the students of the Studio Julien, Paris, 1885. Mr. Hoppin adds a review of the same.

Astronomical Photography. Charles A. Young. *New Princeton Review*, May.

Blind, Higher Education for the. William Burnet, M. A. *Cassell's*, May.

An account of the Royal Normal College and Academy of Music for the Blind at Upper Norwood.

Books That Have Helped Me. President John Basoom. *Forum*, May.

Carlyle, the Early Life of. Unsigned. *Westminister Review*, May.

Chautauqua—a Popular University. Dr. J. H. Vincent. *Contemporary Review*, May.

Chemistry of Foods and Nutrition, the, I. Prof. W. O. Atwater. *Century*, May.

A valuable article.

College Fraternities. Andrew D. White. *Forum*, May.

Columbia College, the First President of. Rev. William W. Olssen, D. D. *Church Review*, May.

Comets and Meteors, origin of. Prof. Richard A. Proctor. *Popular Science Monthly*, May.

Commercial Education. The mayor of Baltimore. *North American Review*, May.

Competitive Examinations. G. S. Carr. *Science*, May 13.

Constitution Americaine nos essais

parlementaires et la. M. E. Masseras. *Nouvelle Revue*, April 15.

Creation or Evolution? W. D. LeSueur. *Popular Science Monthly*, May.

A review of George Ticknor Curtis's book of the same title.

Duty, the Decline of. George Frederic Parsons. *Atlantic Monthly*, May.

Éducation. M. F. Ravaisson. *Revue Bleue*, April 23.

Emerson's Boyhood, a Glimpse of. J. Elliot Cabot. *Atlantic Monthly*, May.

English Dictionary, a New. W. Epiphanius Wilson, M. A. *Church Review*, May.

English in the Preparatory Schools. Ernest W. Huffcut. *Science*, May 13.

A sensible article.

English Literature, the Study of. *Cornhill Magazine*, May.

Enseignement des Sciences.—Apropos de L'école Polytechnique. M. Raphaël Chandos. *Revue Scientifique*, April 30.

Erkenntniss. Ueber Objective und Subjective Begrundung der Erkenntniss. P. Natorp. *Philosophische Monatshefte*, Heft 5 and 6.

Etching, Modern. Frederick Wedmore. *Fortnightly Review*, May.

Europe, Our Hundred days in, III. Oliver Wendell Holmes. *Atlantic Monthly*, May.

In this chapter Dr. Holmes tells in an interesting way of his visit at Oxford, Cambridge and Edinburg, and of his experience in receiving honorary degrees at the universities in these places.

Flutterbudget. Olive Thorn Miller. *Atlantic Monthly*, May.

An interesting description of the performances of a brown thrush.

Forests of North America. N. S. Shaler. *Scribner's Magazine*, May.

French and English. Fifth paper. Philip Gilbert Hamerton. *Atlantic Monthly*, May.

Geographie.—Le Globe Geographie de l'Observatorie de Paris. *Revue Scientifique*, May. 7.

German Life in London. Leopold Katscher. *Nineteenth Century*, May.

Girls, the Loss of Our. James Britten. *The Month*, May.

Greek. Present Status of the Greek Question. Prof. E. J. James, *Popular Science Monthly*, May.

Prof. James thinks that the other colleges in this country must soon follow the lead of Harvard and Johns Hopkins in omitting the requisition of Greek for the degree of A. B.

Holes in the Education Net. Millicent Garrett Fawcett. *Contemporary Review*, May.

Holmes, Oliver Wendell. F. H. Underwood. *Good Words*, May.

Homeric Astronomy. A. M. Clerke. *Nature*, April 21 and 28.

Human Faculties, the. Mind and Muscle. *Science*, May 13.

An account of an interesting experiment in muscular training at the Elmira reformatory.

Hygiene as a basis of Morals. Francis Emily White, M. D. *Popular Science Monthly*, May.

An important article. As Mr. Edwin Chadwick said that he could build a city which would give any desired death-rate from fifty or more in a thousand down to five in a thousand annually, so Dr. White makes the radical claim "that a city might be so built, and the municipality so administered as to secure *any desired* degree of morality within certain limits."

Hypnotisme et la Pédagogie, l'. M. le docteur P. Ladame. *Revue de L'Hypnotisme*, May. 1.

Icelandic Novelist, an. William H. Carpenter. *Yale Review*, May.

Imperial Institute, Work of the. Sir Frederick Abel, C. B., F. R. S. *Nature*, April 28 and May 5.

Indians in 1887, the. Prof. William G. Sumner. *Forum*, May.

Infant Schools and the Kindergarten. Emily Shirreff. *Science*, May 13.

Jefferson, Some Letters of. *Southern Bivouac*, May.

Many of these letters refer to the University of Virginia.

Juristischen Studiums, zur Reform des. Ludwig Fuld. *Unsere Zeit*, May.

Knights of Labor, Mission of the. Irving M. Scott. *Overland Monthly*, May.

Language, the Simplicity of. Prof. Max Muller. *Fortnightly Review*, May.

Lawmakers, the Nation's—the Senate. Z. L. White. *American Magazine*, May.

Literary Life in Boston. William H. Rideing. *American Magazine*, May.

Literature of Norway and Denmark, the New. H H. Bogesen. *New Princeton Review*, May.

London College of Preceptors. *Science*, May 13.

Men and Women, Mental Differences between. George J. Romanes. *Nineteenth Century*, May.

A sensible article showing the mental differences between the sexes, and advocating a higher education for women that shall not ignore these differences.

Mysticisme et Materialisme. M. Denys Cochin. *Revue du Monde Latin*, April.

A review of Henry Drummond's "Natural Law in the Spiritual World."

Mythas, Sage, Märchen, Legende, Erzählung, Fabel. Prof. Steinthal. *Zeitschrift fur Völkerpsychologie und Sprachwissenschaft*, Heft 2.

Napoleon Bonaparte, II. H. Taine. *New Princeton Review*, May.

Natural *versus* the Supernatural, the. John Burroughs. *Popular Science Monthly*, May.

Nature and books. Richard Jefferies. *Fortnightly Review*, May.

New England Educational Institutions, VIII. The Maine State College of Agriculture and the Mechanic Arts. President M. C. Fernald. *New England Magazine*, May.

Oxford After Forty Years. E. A. Freeman, D. C. L. *Contemporary Review*, May.

Penology, Practical. Henry J. W. Dam. *North American Review*, May.

An account of the system of treating criminals practised at the Folsom State prison, California.

Pharaoh, Finding P. Edward L. Wilson, *Century*, May.

Pharaoh the Oppressor, and His Daughter, in the Light of their Monuments. John A. Paine. *Century*, May.

Physiological Ethics. Noah Porter. *New Princeton Review*, May.

A review of Leslie Stephen's "Science of Ethics."

Playwrights of Paris, the. Theodore Child. *Contemporary Review*, May.

Poetry and the Fine Arts. The Professor of Poetry at Oxford. *National Review*, May.

Poetry, Some Recent. Ernest Whitney. *Yale Review*, May.

Primary, Secondary and University Schools, the Respective Functions in Education of. S. S. Laurie. *Science*, May 13.

Psychologie.—La Vitesse Comparee des Sensations. M. A. M. Bloch. *Revue Scientifique*, May 7.

Realistic and Dramatic methods in Teaching Geography. William Jolly. *Scottische Geographical Magazine*, March and April.

Reason, Prof. Le Noire's New Theory of. T. B. Saunders. *Scottish Review*, April.

Religious Instincts, our. Professor James T. Bixby. *Forum*, May.

Science and the Spiritual. A. Jay DuBois. *Yale Review*, May.

Scuola Educativa, la. A. Gabelli. *Nuova Antologia Revista di Science, Littere e Arti*, April 1.

Self-conscious Selves, Our. H. D. Traill. *Contemporary Review*, May.

Sleep and its Counterfeits. A. de Watteville, M. D. *Fortnightly Review*, May.

Snow Masses, Influence of, on Climate. M. A. J. Woeikoff. *Popular Science Monthly*, May.

Social Composition of American Cities, the. Rev. Samuel Lane Loomis. *Andover Review*, May.

Socialists, the. President Francis A. Walker. *Forum*, May.

Social Studies. Second series. I. The Nature and Significance of Corporations. Richard T. Ely. *Harper's Magazine*, May.

Southern Literature, the Recent Movement in. Charles W. Coleman, jr. *Harper's Magazine*, May.

State Education. An editorial. *Popular Science Monthly*, May.

An argument for *laissezfaire* in education in place of our present public school system.

Strength. Decay of Bodily Strength in Towns. Lord Brabazon. *Nineteenth Century*, May.

Sun's Heat, the. Sir William Thomson, F. R. S. *Popular Science Monthly*, May.

A lecture on "the probable origin, the total amount, and the possible duration, of the sun's heat," delivered at the Royal Institution, on Friday, Jan 21, 1887.

Tariff, Moral Aspects of the. Ellis H. Roberts. *New Princeton Review*, May.

Technical Education and Foreign Competition. Unsigned. *Westminster Review*, May.

Undergraduate Life at Trinity Forty Years Ago. J. S. P. *Temple Bar*, May.

Universities, Rise and Early Constitution of. Edward G. Bourne. *Yale Review*, May.

A review of Laurie's book of the same title.

Vacation, What Can be Done in. Catherine C. Higgins. *Lend a Hand*, May.

Vassar, Social Life at. L. R. Smith. *Lippincott's*, May.

Victor Hugo, le Theâtre de. M. Leopold Lacour. *Nouvelle Revue*, April 15.

Washington Irving at Home, a Glimpse of. Clarence Cook. *Century*, May.

Wealth and the Working Classes, II. W. H. Mallock. *Fortnightly Review*, May.

Womanhood in old Greece, (conclusion). Mrs. E. Lynn Linton. *Fortnightly Review*, May.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

VOL. II. SEPTEMBER, 1887. NO. 6.

THE ORDER AND RELATION OF STUDIES IN THE HIGH SCHOOL COURSE.

SAMUEL THURBER, ROXBURY, MASS.

Whatever shape the secondary education of the future may take, it will surely be an outgrowth of the secondary education of to-day. Change will be gradual and well in the rear of the public sentiment that calls for change. Hence the high school course, as it actually exists and is well known to us who work in it, is the necessary point of departure for any discussion that contemplates revision or modification of this course. A German writer on secondary education remarks that the German people, were they to have to constitute their gymnasium anew from the beginning, would make an institution very different from the existing one ; an observation that seems very just to any one who knows the temper of that people with regard to their upper education. But the strongly intrenched facts are in the way of all theorizing. The old house is hard to build over with the family still living in it, and the family cannot move out. Hence temporary shifts must be resorted to from time to time ; and it is the sum of these temporary shifts that in the long run will reconstruct the edifice and bring to pass extensive remodeling without the vicissitude of destruction. But traces of the old plan survive indefinitely. Every school that has a history contains anomalies that are unmeaning except as reminiscences of an earlier era. Something in its class names, its order of studies, its ceremonial, perplexes a stranger till he learns the facts of its past. If it is a famous school, newer ones will often be found to have copied some of these idiosyncrasies as if these were valuable parts of its plan.

The proper function of such an association as this would seem to be to mediate between the schools as they are and the forces in society and the state which call for change. On the one hand we must resist ; on the other we must yield. But we must do both wisely. An intelligent conservatism will win for us respect and influence, but obstruction will jeopard our standing as leaders and reduce us to employés. The fundamental question of the right of the schools to exist is disappearing from view. Evidently the field is practically won. The people have not been persuaded to withdraw from us their support. Self-preservation ceases to be our all-absorbing issue, and we can turn to questions of internal economy, with the purpose to bring the high schools into the fullest possible correspondence with social and civil needs.

As they originated in the oldest communities of the country, the high schools seem to have been formed on the conception that their programs should be epitomes of all knowledge. The purpose of their founders was that learning should not perish from the earth. Their teachers were learned men, transmitters of their scholarship to the next generation. The learned man figured then in society much more largely than he does now. His main stay was his Latin. It was the age of clerical domination. A college degree gave a man dignity and standing, affirming him to be *master* or *doctor*, competent to *teach* the arts he knew. This ancient conception of the upper schools as the repositories of learning and of their teachers as the transmitters of it is passing away. It is inconsistent with modern ideas, and ought to pass away. It is no longer requisite for a teacher to be a learned man: but he must know well whatever he has to teach, and, above and beyond that, he must know how to teach this. In our day we have seen pedagogy,—the word and the thing,—appear above the horizon. The learned man goes down before the pedagogue, and to the pedagogue the future belongs.

We have heard lamentations over the disappearance of the ancient college president, that venerable figure that we still remember as the unsurpassed type of human wisdom and authority. Our sons, we are sure, see no such impressive personage about those college halls. But the college president of the old time was fated to disappear as the clergy lost their ancient social rank and prestige, and especially as women began to come to college and to become also college presidents. Nothing makes or saves an executive officer to-day except executive ability. This faculty has disengaged itself from scholarship as being in some sort inconsistent with it: the president must now be preeminently a business man, and the business man is in no way imposing to the imagination. Executive ability is not supposed to be conferred by any educational process. Much as we esteem education, we have no expectation that a highly educated person will be specially competent to manage affairs. Much as we esteem scholarship, we have no expectation that a very scholarly person will be specially skilful in teaching our children. In this specialization of functions and capacities, pure learning has declined in honor. Power of some sort, skill to do something for men, whether spiritually or materially, has come uppermost.

Now the high schools in their earliest form were intended to fit boys for the early colleges or to subserve the interests of learning. The former aim was the prior one in time, and determined largely the way in which the latter should take form and substance. The obvious way in which to hand down knowledge to the next generation was to provide that teachers possessing this knowledge should directly convey it to the youth that should assemble about them. This was the chief aim of the secondary school,—the imparting of knowledge. Other aims slowly grew into the consciousness of educators and of their critics. A standard slur upon the prevalent teaching came to be a comparison of it with the act of pouring into a vessel. The pupil was the vessel and had a passive part in the operation. The etymology of *educo* was thought of and gradually brought much into notice as a suggestion of better methods. Meanwhile the body of existing knowledge was growing to vast proportions. The proximate epitome of it, which the original course of study had tried to embrace, was ceasing to be, in any sense, a compendium, or representative on a reduced scale, of the systematized knowledge of the race. The conception of learning, as an entity having its recognizable boundaries, traversable in thought and in some sort attainable by diligence and genius within a life-time, grew indistinct, and may now be said to be obsolete. The fading away of such a fundamental conception left the schools somewhat in the lurch and destitute of a standard of faith, so that when new sciences and arts came to plead for admission to their programs, they had no resisting power, but could only point to the crowded condition of their schemes and ask, what existing studies could be thrown away to make room for new ones. Without a determining principle for its foundation the school was insecure both in its own aims and in the affection of the people.

This determining principle is now developing itself,—very seasonably for the high schools,—and promises to furnish them what they needed, both theoretically and practically,—a good philosophy or *raison d'être*, and a good course of study.

It is no longer customary to speak of putting or keeping a study in the program for the sake of honoring the study, or because mankind owes that study a debt. The school is for the sake of the pupils, and not for the sake of science. The pupils are going to live in this present world, and not in the past. They are not destined for a cloister, nor are they to be protected from the competitions of modern life. They are destined to earn their living by being useful in some way to their fellows amid the struggles of rivalry in a restless, trading, investigating age. The oldest schools were established by the church for ecclesiastical purposes, that is, to train a clergy. The schools to-day are established by the state for civil purposes, that is, to train a body of citizens. But the modern state recognizes that civil purposes coincide at every point with what should be the personal aims of the individual, and that the highest good of the individual is therefore the ultimate end of the schools.

In what does the highest good of the individual consist? We might analyze this highest good under four rubrics, and specify, 1st, a moral aim,—the discipline of the conscience; 2d, an esthetic aim,—the culture of the taste; 3d, a purely intellectual aim,—the training of the mind to action, or the development of power; 4th, a practical aim, or the furnishing of the mind with the means or the tools of knowledge. I suggest this analysis as one of the commonplaces of current philosophizing about educational aims, and because its obviousness makes it a good starting-point in discussing courses of study. But the analysis is one that can be made in thought only. No lines can be drawn among the various school studies partitioning them strictly in separate divisions.

The moral aim, to which we should agree in giving precedence over all the rest, can hardly have any study at all assigned to it, but is involved with the school-discipline and with those ministrations of a serious minded teacher which cannot be prescribed in any manual. It would need an entire hour for its due treatment, and does not come within the scope of this paper.

The other three aims,—the esthetic, the intellectual, the practical,—are involved with each other in such intricate ways, that the most we can say regarding them is that certain of them are subserved in a greater degree by certain studies than by others. We cannot, for example, name a study, not even penmanship or book-keeping, that issues *merely* in skill and becomes a practical tool. We cannot name a study, not even geometry or algebra, that results in *pure* mental training or power. We cannot name a study, not even drawing or literature or poetics, whose *sole* outcome is esthetic culture. Still, it is well to bear the analysis in mind, to keep ourselves clearly conscious of the bearings of our work, and to enable us to perceive if a course of study is about to lose or gain under proposed change.

The esthetic aim is not likely to be neglected so long as the present strong popular tendency exists in favor of the study of literature and of drawing. Under the head of English it is becoming more and more the custom to prompt pupils to read imaginative works adapted to their capacity. This study should go through the entire high school course. A methodic in reading is getting itself established, and what only teachers of rare and peculiar literary culture at first knew, namely, where a great variety of reading matter suitable for youth could be found, is becoming the common property of all. Publishers feel the demand and respond to it liberally. What is needed is clear-sighted editing talent. Most books need to be not merely commended to youth, but to be prepared for them also, chiefly by selection of the strong and memorable parts.

Whether our pupils are destined in after life to read Latin very much is at least questionable; whether they will read much French or German is not quite certain; but that they will all read English books is beyond all doubt. Possibly books will be to them hereafter almost the only source of knowledge. Therefore they should have great practice in the use of books in school, and that too in such ways as may be used fruitfully in the future. A great amount of cursory reading is needed to correct the influence of the slow process of lesson-learning through text-books.

Another study that depends upon much reading and refuses to be confined within a text-book is history. History also should begin with the course and go through its entire extent; with this modification, however, that in the last year history may give way to the somewhat allied topics of *government* and political economy. The number of hours a week in history and literature would of course be small, as they imply a far greater time devoted to books in solitude than to recitation. From the nature of the case these studies depend on a habit of reading long continued, and kept up spontaneously by the reader. Hence for both history and literature much time must be taken, but this need not all be school time, and need not be a long period daily, if the studies are conceived as lasting during the entire course of the school.

Nowhere else does modern improvement over old methods show itself more conspicuously than in literature and history. Once a high school aspired to have a costly collection of physical and chemical apparatus, and had a text-book or two in history. The times change. Now the costly apparatus is in disrepute, home-made apparatus serves the purpose better; and the text-book in history, the dry compend that we all know, with its few or its many dreary, unmeaning illustrations, with its utter lack of literary form, with its dead, uninspiring style,—this *vade mecum* of the pupil in his walks homeward and schoolward, committed to memory page by page and hence never really learned,—the text-book of history is giving way to the library with its collection of authors of repute, its historical literature, its sources of historical knowledge. And the function of the teacher is no longer to be that of a hearer of recitations, but rather that of guide through the literature of the subject: and not of guide only, but of interpreter and inspirer as well.

When we get our pupils engaged in fruitful and interesting courses of reading, and arrange their studies so that the time necessary for this reading can be had, we bring them at once into that attitude of mind and into that well furnished condition of mind which are favorable for composition writing. And just as the reading of literature and of history should be perennial, though of course diversified, so composition writing should always go along with them and get from them much of its material. The compositions will be largely in lieu of recitations, as showing how faithfully and thoroughly work has been done. In fact, this should be the chief object in getting a written exercise from the pupil, namely, to ascertain the content and the manner of working of his mind. Most valuable in the sum of a man's mental acquirements is the habit of recognizing the central idea of a paragraph or chapter, a sermon or an essay. Pupils therefore having read something definite and capable of yielding to their analysis a clearly separable kernel of thought, should be held to the duty of abstracting this inner, involved nucleus, and giving it back in simple form. This makes an excellent exercise in English writing, and is an equally good discipline in thinking. Such exercises should be at least as frequent as original compositions. According to the pupil's stature, of course, must be the arduousness of the tasks set him; but one prime quality of such work as this is that it furnishes an unlimited range of degrees of difficulty and is appropriate to every era of school life.

I have spoken of the persistence of names after their meaning has been lost. Doubtless the institutions of the upper step of our primary education will still be called grammar schools when the declining study of English grammar shall have vanished from them altogether. Named originally from the predominance in the founders' minds of Latin grammar as the great staple of education, they will still be called grammar schools when neither Latin nor any other grammar shall be left in them. I am imagining a continued decadence of this study, which, however, I am not so sure will take place. Perhaps the abridgment of English grammar in the schools has gone far enough, and conservatism on our part is now in order. But even if the very elementary English grammar now left in the grammar schools is still retained there, I am clear that a more advanced course in this study ought to appear in the program of the high school. I recommend this in the interest of that line of studies of which, for school purposes, grammar is the most elementary stage and mental and moral science the most advanced. And I recommend it because I cannot, from such observation and inquiry as I have been able to make, come to any other conclusion than that mental and moral science themselves, as usually pursued, with systematic text-books embracing epitomes of those sciences, should *not* have a place in the secondary program.

Originally given a place in the schools because they were parts of human knowledge, these difficult and abstract sciences have been retained there from inertia rather than from the conviction that they become parts of the knowledge of the pupils. I find this opinion not quite universal among secondary teachers in Massachusetts, but very nearly so already. I believe no new high school courses have been planned recently to include these subjects. The State Board of Education of Massachusetts, through its secretary, Mr. Dickinson, published an ideal high school course in 1885 without mention of them, and a high school course carefully planned by President Eliot in 1884 omits them equally. These omissions excite no remark, but represent the public sentiment of the community to which the courses were offered.

According to our analysis of educational aims, we should have to think of mental and moral science as contemplating chiefly the discipline of the intellect, or power. If we could not subdivide this aim into two or three kinds, but were compelled to assign to these studies precisely the same species of discipline that comes from the study of natural science or of mathematics, it would be sufficient simply to remove them from the course. But these studies have their own peculiar value in the habits of mind which they beget and in the circumstance that, verging well into the domain of our fourth class of aims,—the practical one,—they yield results of very wide application in the life of every thinking person. In fact, they have the efficacy to determine an element of thoughtfulness in the habit of mind. They are perhaps, more than other studies, the foundation of sobriety and fairness of judgment, of the habit of considering the end in every course of action, and of the ability to detect and compare unseen relations.

Recognizing so great a value as pertaining to such studies as these in a school course, and yet denying that systematic, compendious treatment of them is fruitfully possible in view of the immaturity of the minds of our pupils, I must state briefly in what modified form I would have them appear. And I would lay down as a principle that we should seek for our pupils those points of abstract science where this science is least abstract, that is, where it touches concrete things and has practical bearings.

Now English grammar, pursued as a science, meets these conditions. The words, phrases and sentences are concrete things: their relations are invisible, abstract things. The detection, comparison, naming of these relations is an eminently suitable exercise for the first high school year, and if grammar is begun in the grammar school, I would have it continued, in an advanced form, in the high school also. Grammar will naturally be followed by rhetoric, which eminently has both a theoretical and a practical side, and leads to a consideration of still subtler aspects of speech than does grammar, such as qualities of style and figures of speech. Rhetoric will also have its intimate relations to composition-writing and declamation. The pupil becomes not merely a student of rhetoric, but a practitioner of it, becomes a critic of himself as well as of others, and, being held to give reasons for his judgments, has to practise thinking, which is what, above all things, we aim to get him to do.

There remains, of the medieval trivium, the study of logic, some of whose elements could be taught our classes of the last year with better hope than can psychology and ethics. Logic also has to do with language, but in still severer ways than grammar or rhetoric. We still cling to tangible symbols. We do not yet call for introspection and ask the pupil to study his own mind, but we do ask him to think about thought as having form in speech, and we ask him to practice the art of reasoning. Distrusting my own disposition to recommend something of logic for incorporation in a high school course, I sought counsel of a friend,—a professor of philosophy at one of the foremost universities of the country, who has had abundant secondary experience, and holds rank both in this country and abroad as a master of philosophical science. I quote what this expert says about the parts of logic that could be taught secondary pupils, premising that he does not say it till he has, in emphatic lan guage, denied the wisdom of trying to teach these pupils mental and moral science proper.

He would have such a course in logic embrace "the most mechanical and fixed parts of formal logic,—*treated from the standpoint of the incorporation of thinking in language.* On this basis the strictly *formal* (not the *real*) distinction between terms, propositions and arguments might be set forth and committed to memory and applied to examples. The *form*-character of division, and its formal rules; the same of definition; the simple formal relations of propositions under conversion, opposition and permutation; and the form of the syllogism, categorical, conditional and disjunctive, with the figuring and modalizing of the first and the mode-forms of the two latter, including in each case thorough apprehension and after memorizing of the rules for valid form and of the corresponding fallacies and their technical names.—Such would be the program I would advocate for instruction under the title of philosophy in our secondary schools, if I advocated anything; and I would confine this to the last half of the last year, at the rate of three hours a week, or to the whole of the last year at a rate correspondingly reduced."

Does it not seem that as the result of a course of secondary education our young men and women should be capable of consecutive thought, and, more than that, should, as a habit, be inclined to think? As the trained naturalist sees resemblances and differences in animals and plants, so he who has had a good education,—which is a good all-around training,—should approach a complicated question in human concerns, in politics, for example, in morals, in religion, or should come to a new study, like pedagogy or psychology, with a mind prepared to appreciate the subtle difficulties of such subjects, to avoid hasty conclusions or the accepting of opinions from others, and to insist on correct reasoning from all the premises. Now such mental habitudes are engendered in learners, under teaching according to right methods in any studies whatever: but I submit that before the school course is ended the pupil should have been brought somewhat closely to a consciousness of the processes of thought,—at least so much so as is implied in the opinion about teaching logic above quoted.

Thus far I have discussed a group of studies that seem to arrange themselves, with more or less relevancy to that designation, under the head of English. These would seem to be the most important studies of the secondary course and should have two-fifths of the entire school time of the course, besides determining pretty much all the out-of-school reading and the home lessons. To use another medieval term, the *humanistic* aim of education is to be attained within this range of studies. That which was sought by the eager scholars of the Renaissance in the ancient literatures our high school youth must find in their own literature.

As this point needs to be clearly understood, let us consider for a moment the original and the present meaning of the word *humanism.*

By the word *humanitas* the later Romans translated the Greek *παιδεία,—education. Humanitas* therefore stood for the intellectual condition of the nobly cultivated freeman in aristocratic contrast to the unhumanity, *immanitas*, of the rude barbarian, and to the education of the workman, which aimed only at gaining a livelihood. Now the *humanity* of the Roman was attained by the study of the Greek poets and philosophers, and so came to have the connotation of literary culture generally. In this sense it was used from the days of Petrarch as the watchword of those men who, after the decline of the sciences and of the absurd language of scholasticism, went back to the classical writings of Greece and Rome. These men were therefore called humanists, their intellectual aim was called humanism, and they themselves named philological studies *studia humaniora.*

The great historical epoch which we call the Renaissance, or the new birth of civilization, of education, of human thought generally, found at once its stimulus and its satisfaction in the classic literatures of Greece and Rome. The word *humanitas* was at hand, with its obvious and imposing etymology, with its convenient meaning in Roman usage. It took root in the terminology of learning and has served all these generations, and is still serving the present one, as a whole argument in itself. The men to-day who insist that the ground-work of all education above the primary must be the classic languages still call themselves humanists, apparently begging the whole question with their very name.

But let us clear up matters. Humanism meant at first, education in the best thought of the human race, as this best thought took form in the most beautiful literary productions. But humanism means to-day education in what *was* the best thought of the human race five centuries ago, as appearing in what *were*, up to that time, the best literary productions. The strict humanist ignores modern times, ignores modern literatures, ignores Europe and America. I could cite the most extravagant expressions, from humanists now teaching youth, of contempt for modern thought, modern poetry, modern art. The early humanist learned Latin as the absolutely necessary medium through which to come into relation with the thought of his contemporaries. He never thought of Latin as a precious discipline. He got his Latin as quickly as he could, that he might proceed to use it for important ends. The medieval man had no literature about him to respond to the stirrings of his mind except the literatures of Greece and Rome, then recently rediscovered and coming before the world with all the impressiveness of novelty and surprise. There were to him no modern languages and literatures. Every impulse of his soul urged him to master the ancient languages or, at least, Latin. In Latin spoke his contemporaries if, like him, they had felt the general movement and had thoughts to utter. Not to know Latin so as to read it, to write it, and to dispute in it, was to be left behind, to be rude and ignorant. Not to know Latin was to lack the first condition of all culture. One's native speech was the "vulgar idiom." Philosophy, poetry could not speak this vulgar speech. Not only was the vocabulary of the vulgar idiom inadequate for literary use, but to admit the people, the *vulgus*, to the sanctuary of learning, would be a profanation of the temple.

But consider how completely the conditions in which humanism had its origin have given place to conditions in which a simulacrum of humanism has to cast about for strange arguments to justify its claims. The ancient literatures still exist, but they do not exist alone. They have remained what they were to Petrarch: but in Petrarch's own country has grown up a literature already far more extensive than what has come to us of its progenitor, the literature of the Romans; and not only more extensive, but more interesting, more abounding in philosophy, in poetry, in history, as well as rich in those modern departments of thought which to the ancients were unknown. Still more important than the literature of Italy are the literatures of England, France and Germany. All these surround the modern thinker, each speaking its vulgar idiom, each growing from day to day, and always piquing the curiosity as to what will be its next contribution to the great human interests,—to science, poetry, history, politics, art, philosophy, pedagogy. No modern scholar speaks Latin, or writes Latin, except as an in-door gymnastic or amusement, or as a *tour-de-force*, to prove perchance his scholarship,—that is, his ability to do what need not be done.

The conditions, in short, are all changed. Yet the studies which the elder humanists pursued because there were no others to answer their desires, we still pursue with laborious effort to account to ourselves for our own practice. The elder humanists sought to read the ancient literatures, and to that end learned the languages. They would not have understood the modern plea that the use of the ancient languages is in the labor of their acquisition. They would not have understood the anomaly, that a language should be studied with toil, and the literature thereafter *not* be read. Wholly unintelligible to them would have been the argument that the ancient languages should be studied because they exhibit the roots of the words of modern languages. Strange would have seemed to them the practice of studying a language which there would never be an opportunity to speak, or to hear, or to write, and which would practically, for lack of interest, never, in the course of a life-time, be read.

In short, the Renaissance impulse has died out, but the Renaissance forms remain. These forms dominate our thought as well as our practice. They dominate our practice, and cause us to carry each year through the Latin rudiments thousands of youth who, we were sure when we began, would never go beyond the rudiments. These forms dominate our thought, and cause us to believe that this superficial study of elementary Latin, with a few pages of Latin books, read in petty lessons with perpetual use of dictionary and other helps, has contributed to culture some vital portion which could be had in no other way.

The ancient humanistic aim,—to come liberally and intimately into contact with the best thought of the race as expressed in the most beautiful forms,—is still a noble principle, worthy to govern a generous portion of the education of youth. But we are more happily situated than were the ancient humanists. No unknown language interposes between us and a good part of the best thought of the race as expressed in most beautiful forms. Let us acknowledge ourselves beholden to our native tongue for the best that is to be striven for in education. Such has been the way of all the great peoples. Such is, in truth, our own way now; for the modern world has crowded the ancient world into a corner of our schools, where it does indeed consume much of our time and energy, but makes no impression on the prevailing culture.

Ex-president Porter has said he would not recommend the study of Latin to young persons who would probably not carry it far enough to read the easier Latin authors. The principal of a Latin school, in which boys study Latin six years, considers that his boys do not learn to read Latin. Many opinions come from Germany to the effect that after nine years of such application as is unknown in this country, the gymnasiasts still cannot read Latin; and all sorts of testimony agree that, school days once over, they *do* not read Latin. I leave entirely out of the discussion those college requirements that call for some modicum of Latin preparation which the schools seem to satisfy. Let me speak of the course in our high schools which is to be final for those who take it, and which has three or four years of Latin. I would ask seriously,—is such a course as this worth the while? Does it render a fair equivalent for the outlay of precious time that it exacts?

For intending students of certain departments of science and art, and for intending practitioners of certain professions, Latin is necessary. It is necessary for the philologist, for the investigator in history, for the student of theology or of ancient law. But for all these, of course, far more Latin is necessary than a high school can give, and, naturally, such persons will resort to universities and elect Latin courses for their special purposes.

Then there is so much Latin floating about, that every reader of anything whatever is liable to meet quotations or formulas in that language which it is well to understand. This comes nearer to a genuine argument for teaching some portion of Latin than most of the reasons which we hear adduced. Still it would seem hardly worth the while to undertake the great labor of mastering the rudiments for an object no more important than this.

As to the assumed *disciplinary* value of Latin as a school study, let it be noted that this is a wholly modern argument, that has all the marks of a device invented to prop a declining cause. The *great* philologists do not accept it. Madvig, for example, the author of the well known Latin grammar, expressly took occasion to utter a warning against the prevalent over-estimation of linguistic studies generally as school disciplines, and against the current assumption that Latin is superior in this respect to the modern languages. And Boeckh, who wrote "The Public Economy of the Athenians", uses vigorous language in denouncing the claim that the ancient languages have a unique disciplinary value, and goes so far as to say he would expel them from the schools, if that is the only reason for retaining them. These great scholars would have the ancient languages taught for their *historical* value, and they would not know how to realize this value except by knowing the languages fluently, so that reading them in mass should be as easy as reading their native tongues. The presuppositions of modern culture are in ancient culture, we hear said : and the assertion is so true that it is a truism. But what relation has this truth to the culture of our high school pupils with their slight touch of the ancient languages? The Germans and the French teach their girls no Latin, but teach their boys a great deal more than we teach our boys. Our practice for both sexes comes much nearer to the European practice for girls : we come nearer to zero in the amount of Latin we give boys and girls than we do to any degree of mastery of the language. One would hardly say that Dr. Mätzner's school for girls in Berlin,—the famous *Luisenschule*,—with its thorough teaching of English and French, leaves the girls linguistically poorer than does our high school, with its superficial Latin. The fact is, the German school leaves its pupils linguistically richer than does the American,—richer for all purposes of intellectual enjoyment,—with larger access to the stores of human knowledge, and to the treasures of literary art.

I am well aware of the popular prepossession in favor of our small Latin courses. Apropos of this tendency, I would cite the results of certain statistics gathered at Yale College, as to the employments or professions of students' fathers. Fathers whose professions imply classical training send their sons in considerably larger proportion to the scientific school than do the fathers whose employments suggest the absence of such culture. *Omne ignotum pro magnifico.* It is to be noted that the modern movement in Germany is altogether in the hands of scholars of classical training, while the gymnasia are crowded with the sons of *parvenu* families anxiously aspiring to the social standing that, in the artificial system of Germany, gymnasial education confers.

For such reasons I recommend that the real humanistic aim,—to which, be it noted, I distinctly give my homage,—be attained by that range of studies which I have grouped about *English* as a centre; and that to these studies be transferred the time and energy now devoted, in the standard high school course, to Latin.

Of other languages I would recommend only one, unless, indeed, a second might be reserved for such pupils as are abundantly capable of additional work, in accordance with a principle that may well govern school procedures, to allow opportunities for exceeding the allotted quantum as often as this seems wise.

So I would urge that French be taught throughout the course, and that it have a regular daily exercise. Four years of French should issue in a very useful degree of mastery of the language. And here I would suggest that the linguistic outfit of an average pupil who has studied one language four years is better than that of one who has divided his time between two languages. The incentive to subsequent study of a second and a third language will be greater if one language is already somewhat fully possessed, and its usefulness as a means of culture and enjoyment is deeply felt and appreciated.

It remains for me to say in very few words what I have to suggest about the studies of the mathematical and the scientific groups.

The traditional arrangement of the mathematical studies, by which arithmetic, algebra, geometry and trigonometry succeed in this order, each as if it were an isolated whole and, as a whole, preparatory to what follows, is giving way to sounder ideas, as, very clearly, it should. Algebra may overlap arithmetic considerably, and applied geometry should accompany both arithmetic and algebra from a period long antedating the arrival of the pupil in the high school. The trouble with the American teacher is that his habits are fixed too rigidly on the idea that he must have a definite year or term for each study, and a text-book that shall present him in orderly detail just what is to be done in that study.

It is not well to bring a class that has had no geometry at all up to Legendre or Chauvenet or Wentworth. Most of what is contained in G. A. Hill's "Geometry for Beginners" may have been taken before this time arrives, and this preparation will make the Euclidian geometry very easy when it does come.

The desirable reforms in secondary methods in mathematics are indicated by Prof. T. H. Safford in his Monograph on "Mathematical Teaching and its Modern Methods" (Boston, D. C. Heath). A fuller development of a mathematical methodic for high schools is, however, still a desideratum.

Of the studies that range themselves under the head of *natural science*, those which have the greatest practical utility in life should be placed in the first half of the course, in order that pupils who attend school only two years may not fail to secure that which most intimately concerns their welfare. Hence during the first two years may be taught human physiology and hygiene, zoology and botany, and elementary physics. An extended course of experimental physics is desirable in the latter half of the course. Whether this is compatible with courses in chemistry, astronomy and geology is questionable. One science, at least, should be taught with all the elaboration and thoroughness permitted by the pupils' stage of mental development. This science will naturally be physics, as having the most complex relations with the other special sciences, and as lending itself most conveniently to the modern idea of personal research on the part of the pupil. The other sciences will necessarily be put by with brief, rudimentary courses, serving to make known their fundamental conceptions and, in the hands of earnest teachers, to stimulate to further study.

Of the four groups of studies considered in this paper incomparably the most important, from every point of view, is the English-humanistic. To assign to the foreign language, and to the mathematical and the scientific groups, each one-fifth of the school time, and to the English-humanistic group two-fifths, is to give the last hardly the proportion it deserves. For it is within the studies of this range that the idealism, so much vaunted by the classic-humanists, is in reality to be attained. If it is possible to plant in the education of youth any prophylactic against the materialism of the age, this possibility is to be realized only here. When this conviction shall have sunk into the minds of secondary teachers, it will be time to look for those tentatives towards the settlement of a methodic in these studies, which will indicate the dawning of a new era in secondary education.

HISTORY IN HIGH AND PREPARATORY SCHOOLS.

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I. HOW HISTORY IS TAUGHT.

It is not many years since the question, how is history taught in the United States? could be answered in only one of two brief ways; it was not taught at all; or it was taught perfunctorily from single text-books. A certain quantum of knowledge of affairs in the ancient world was imbibed by students of the classics; some people, old and young, read history for the love of it; an acquaintance with the past was thought desirable for the statesman; and here and there a choice spirit taught his pupils, in school or college, what history actually meant. But a professor of history in Harvard College still enjoys telling how at his first recitation in history the tutor gave him his cue: "'The fleet of the Lacedemonians was now equal to that of the Athenians'—proceed, sir."

The attempt to make history interesting to, and comprehensible by, the ordinary reader may be said to have begun with George Bancroft's work; the study of history has been greatly stimulated since the Civil War, by the eager interest of the nation in its own life; and it has been made possible by the multiplication of text-books and elaborate histories. No good college now graduates any student without some attempt to teach him history; a great number of the secondary schools have taken up the subject; and it begins to appear even in the primary schools. Yet the precise end in view in most schools is still indistinct; the methods are frequently crude and tentative; and the equipment is poor. The object of this paper is therefore to examine and compare the systems of a number of schools, so as to discover what is actually going on. Proceeding from the information thus acquired, a second paper will suggest some directions in which the instruction in history may tend, and some methods which may be helpful.

Only the secondary schools will be considered: Prof. H. B. Adams, of Johns Hopkins University, has already examined the work of the colleges, and his results will shortly be published by the Commissioner of Education. The primary schools are too numerous and the work too little systematized as yet. The point of view of the writer is that of one who knows the schools only by their effects; who knows that the graduates of the fitting schools are often badly prepared or unprepared in history; and who would like to receive them with some clear elementary knowledge, with practice in finding things out for themselves, and with good habits of reading. Very important elements in the problem must therefore be neglected for want of a personal acquaintance with the schools, their needs, and their limitations.

The immediate sources of information are the answers received from about ninety principals or teachers of high and preparatory schools, and from a hundred and seventy-five statements made by students of history in Harvard College.* The schools are representative because they are scattered over the United States; and because they are of every degree of importance; but it is presumable that a large number of those who failed to answer had little to tell, and that the amount and quality of instruction in history described in these reports is much above the average.

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* The circulars asking information were as follows:

TO THE PRINCIPALS OF HIGH AND PREPARATORY SCHOOLS.

1. Instruction in history, hours per week ; weeks per year ; number of years:
2. Devoted to Ancient history ; to modern European ; to American
3. Form of class exercises:
4. Text-books:
5. Written exercises and special work:
6. Attention paid to historical geography and map-drawing:
7. Reference books accessible to scholars:
8. Use made of reference books:
9. Please add comments and suggestions.

TO STUDENTS OF HARVARD COLLEGE.

1. Name.
2. Class.
3. Where were you prepared for college?
4. How many years did you study history?
5. How many weeks in each year?
6. How much ancient history?
7. How much modern history?
8. How much American history?
9. Were the classes conducted by recitations?
10. Did you have topics to study up for yourselves?
11. Did you have outside reading as a part of school-work?
12. Did you have historical geography?
13. Did you draw maps?
14. What books of reference were there in the school?
15. Did scholars use them freely?
16. What were the text-books?
17. What historical works had you read, outside of text-books, when you entered college?
18. What historical courses have you taken in college?
19. Did your previous study of history help you to understand better your college courses?

In the same way the circular to students was laid only before those who had sufficient interest in the subject to take a course in history in college.

Three-fourths of the schools reporting, confine their instruction in history to a period ranging from one to two years; a very few carry it on during four, five or even six years. The variation in the number of hours of weekly exercises has no special significance; the common practice is, three, four or five hours or "periods." The combination of years and hours gives, however, widely varying results. The least total is forty exercises; the greatest total, eight hundred; as nearly as an average can be determined, it is about two hundred and forty hours, or three hours a week for two years.

Through the circular the attempt was made to discover the proportion of time spent upon ancient, modern and American history. The results show a great variety of practice. Ancient history is taught in some form in nearly every school, usually as a part of the preparation for college; on the average it takes up one-third of the time devoted to history. A little more attention, on the whole, is given to modern European history. American history is omitted entirely in half the schools, and where taught, occupies less than half the time. It will be seen that the total time devoted to history varies from one third to one twentieth of the whole time spent in school: the average in the schools reporting would seem to be about one tenth.

More important than questions of time and division is the arrangement of work and the order of courses. Here are two schedules: the first is that of the Washington High School.

"First Year: 1. Lectures on current questions—one hour per week throughout the entire school year.

2. Historical Biography.
3. Greek History.
4. Roman History.
} Two hours per week throughout the entire year.

"Second Year: History of England—four hours per week throughout one-half of the school year.

"Third Year: General European History—four hours per week throughout the entire school year."

In the Worcester High School the following excellent course is prescribed:

"In his first year, the pupil is *obliged* to have Ancient History five hours per week for the school year of forty weeks.

"In his second year, he *may* have Mediaeval History and that of the United States for the same time, viz: five hours a week for forty weeks, Mediaeval for first half; U. S. second half of year. In his third year his option is English History just as above.

"In his fourth, if in the college course, he *must* take Greek and Roman History as before."

At least three different aims are in the minds of teachers of history; to teach the pupil to know something; to teach the pupil to think; and to enable the pupil to pass the entrance examination of some college. Public sentiment and many Boards of Education demand facts; and parents demand "a good fit." It is therefore very encouraging to find so clear a perception of the essential in history as is shown by the following extract from the answer of the principal of the High School in Milwaukee:

"In general history the attempt is made to give the pupil some notion of the 'flow' of history, its 'unity' as well as diversity, to bring out correspondences in different countries and times, and to knit the whole firmly together by constant cross-references and review questions. Special attention is directed to the experiences of older nations on questions of present importance in this country. In examining conflicting views, the pupil is encouraged in the attempt to place himself for the time being in the position of the author discussed. In these classes the things mostly aimed at are local· color, perspective, breadth of view."

An examination of the returns shows that few schools have the facilities, the teachers, or the spirit for very much more than is required by the demands of the colleges. "The present temptation" says one principal, "is to 'read up' on history, simply because it admits of being done. No amount of that carries a boy through Quadratics or Homer," and he complains bitterly of "the coat of many colors that the New England colleges force us to draw on."

Whatever the aim of a school, it is of little importance unless it is aided by adequate methods; and there are discernible three distinct types of instruction: the lecture system; the text-book system; and the topical system. The first may be quietly passed over; for not more than one ninth of the schools have regular required lectures. In others there are "supplementary talks"; or to take a student's definition; "the teacher told stories." The text-book method is by far the most frequent. In fully half the cases no other instruction is attempted; only five out of a hundred and seventy-five students report that it was never used where they were prepared for college. In some schools, however, where the topical method is not employed, there are adjuncts to the recitation, designed to make the exercises more interesting. There are "oral reviews," reports of the news of the day, discussions, or the reading of selections in class.

Since text-books are the basis of the work, let us look into the books. They are almost as numerous as teachers. In the ninety schools reporting, seventy-six different works are used. There are thirteen text-books on general history, eighteen on ancient history, nine on the mediaeval and modern periods, eighteen on England, and thirteen on the United States. Only fourteen of the books in the list are used by more than four schools each.

Perhaps a fourth of the reporting schools have put into operation some form of topical recitation ; it has taken root but slowly, since a hundred and forty-six students out of a hundred and sixty-seven had never experienced it. The general method is well shown in the following description of the work in the Binghamton High School.

" In the General History classes the following plan has been tried with satisfactory results.

" On Wednesday the lesson in the text-book for the entire week is given. Subjects are selected, covering the week's work, and one assigned to each pupil. During the week any questions asked by pupils are noted, and to these the teacher adds any that may occur to him. In this way quite a list of 'curious queries' will be made each week. Monday, the topics, which were assigned the previous Wednesday, are discussed by the pupils, each person being usually allowed all the time he or she chooses to take. Sometimes, however, a 'one minute' or 'two minutes' address is required.

" Tuesday, teacher and pupils bring selections bearing upon topics of the week, all extra reading being introduced on that day.

" Wednesday the time is devoted entirely to the text-book—pupils are expected to be thoroughly prepared on that portion assigned the previous Wednesday.

" Thursday the questions collected during the week are answered as far as pupils have been able to look up answers. All are anxious to have as many as possible and no compulsion is necessary. If no pupil has found answers to one or more than one of the questions, the teacher makes some suggestion as to sources of information, and questions are left for the next Thursday. Current events are also discussed on this day.

" Friday is the pupil's day, and each one prepares a list of ten questions that he considers a fair test for members of the class. (Pupils may select questions from any portion of history that has been studied by the class.) As the teacher designates two pupils, they rise and one asks his questions of the other, stating at the close what per cent have been correctly answered. Two other pupils are then named and the same course pursued."

No school in the country has so systematic a course in history and so thorough an organization as the Washington High School. With its eight hundred students, large resources, elaborate apparatus and corps of four teachers of history, it far surpasses many colleges Indeed the grade of the school and the age of the pupils is higher than in most cities and the methods are inapplicable to many less fortunate schools. Mr. E. R. L. Gould, in charge of the department of history writes as follows:

"One hour per week throughout the whole of the first year, the entire first year class is assembled in the large exhibition hall for what may be called a general exercise. First of all the student has explained to him simply and clearly what history is, what it means, what its special uses are. More especially he is told how and why it should be studied. He is told that he must do more than absorb history from a text-book; that he must make his mind a laboratory of analysis as well as a storehouse of facts. He is told that this so-called laboratory work will be mostly done for him in the beginning, but that his responsibility will advance with experience, until he is ultimately called upon to present special topics in their full import to his class-mates.

"Then follows, after these preliminary lectures, the consideration of current questions of immediate or recent political prominence. This year I have lectured upon the Bulgarian and Egyptian questions, Irish Home Rule, Fishery Dispute, Inter-State Commerce Act, amongst others. Students are invited to read what they can find in newspapers and magazines, are questioned upon this information and after contemporary facts have been elicited, I explain the historical phases of these questions and analyze the existing situation.

"The object here is, first, to get pupils to read for their own information, and secondly, to show them that the events of to day are as much matters of history as those which took place a thousand years ago.

"The suggestions given in the general talks upon the proper methods of studying history might avail little if an opportunity were not soon given to fortify precept by practice. The course on Historical Biography is designed to do this. It is conducted as follows. The size of recitation sections of the first year class varies from 30 to 36. Accordingly thirty-six prominent characters are selected, beginning with Pericles and Alexander the Great and ending with Bismarck and Gladstone, and each student is assigned an essay, not exceeding eight pages of foolscap paper, upon some one of this number. The requisite number of cards are prepared, upon which are written the names of the characters and a selection of references appropriate to the subject. The cards are drawn for in each section, and no two in a section have the same subject. Six weeks are given in which to write the essays, and during this time the sub-assistant, whose special duty it is to direct the reference reading of the first year classes, gives all legitimate help. On a day appointed the essays are handed in, are read and marked by the teachers and returned to their owners. The recitations in Greek History, which have been occupying two hours per week all this time, are temporarily suspended, to hear the essays read. They are called up in the proper chronological order, and while the reading is going on, the remaining members of the class listen. After each essay is presented, the teacher who is conducting the exercise comments on it, with a view of pointing out especially the significance of the great events with which the subject of the sketch was identified and their relation to others where any exist. It is an object to make the exercise as full of pleasure as possible; and therefore, instead of having the whole class take notes at the time, each student is required to write an abstract of his own essay, and this after it has been supervised and found satisfactory is placed on file in the room where the section sits, ready for consultation at any proper time.

"This course answers many purposes. The student now for the first time attempts anything like independent work. Perplexed with what seems to him a vast amount of material recommended for this consultation, and knowing that he cannot read it all, he seeks and obtains directions for reading to the greatest advantage. His attention divided among so many events, in every one of which the subject of his sketch was concerned, he learns to discriminate between important and unimportant facts. His individual effort makes him thoroughly familiar with one particular field, and in listening to the results of others, he gets an initial and superficial view of general history which, in most cases, creates a desire for more comprehensive and detailed information. The interest attaching to a personal figure as the centre of a cluster of events, the restriction of individual energy to a limited compass, and above all, the rivalry of each to have the best essay, combine to make the results obtained by a study of historical biography in this manner eminently satisfactory.

"The work in Greek and Roman history is carried on with the aid of text-books, lectures and topical studies. Considerable stress is laid upon map-drawing, and at the beginning of each exercise, about fifteen minutes are devoted to this, until the students can draw fair maps from memory, locating all places historically important. Occasional formal lectures are given upon subjects such as art, philosophy, religion and literature in Greece; and domestic life, politics and administration in Rome: but the most usual forms of supplementing the text-books, are informal talks by the teachers and topical discussions by students. Note-books are required and frequent written reviews are held, of which usually no previous notice is given.

"In the second year English History is studied for half the year, and in the third, General European history throughout the full academic session. The use of the text-books does not extend beyond that of a convenient repository of facts. Collateral reading is required. The more striking facts of English history are made the themes of class essays and discussions by the most efficient students, and of frequent lectures by the instructor.

"The third-year work is topical, and is conducted on the co-operative plan, every member of the class assisting the instructor with well prepared lectures upon particular themes. The great epoch-making events above are studied and are made the themes of these class lectures.

"In both second and third years, note-books are required, and written and oral examinations are frequently held as a means of drill."

The advantage of the topical method is a two-fold one: it trains the student to investigate and to think; and it encourages good habits of reading. The efficiency of the system depends upon the abundance and accessibility of books. Not many schools can equal the Syracuse High School library of eighteen thousand volumes, and few happy principals "can think of no necessary book wanting;" but about one-third of them appear to have creditable collections of books within their own walls; more than another third possess a few standard encyclopædias and histories. Eight schools depend wholly on public libraries, and others make those libraries add to their own scantier resources. At Washington and a few other places there is a small circulating library, made up by purchase or by contribution.

On the question how faithfully the books of reference are employed, there is a difference of opinion between teachers and students. Fifty schools out of ninety report a good use; only twenty-seven students out of a hundred and sixty-nine had noticed that in their schools the books were well used; twice as many had noticed the contrary; one had used them "only for amusement" and eighty-three had had either no books or no impressions. It appears proven that the reference libraries of the schools are in a great many cases too small or too uninteresting, or that pupils are not properly trained in their use.

Home reading in many cases doubtless supplies the lack. The taste for historical reading is easily implanted in the minds of thoughtful young people; about half the students who made out a statement had read at least one standard history. The favorites are Prescott, Macaulay, Irving, Green, Bancroft, and the writer regrets to record Abbott. About a sixth have read juvenile histories, historical novels, and various other books; nearly a third appear to have read, or at least to have remembered, absolutely nothing outside of their text-books. The proportion of readers is the more remarkable, because only about a sixth of the whole, report that outside reading was required in their school. The principal of Cook Academy, Havana, N. Y., makes an excellent suggestion about reading.

> "I encourage the class to read good historical novels and stories, e. g. Ivanhoe, Quentin Durward, Kenilworth, &c. In American History I have secured a good number of these, such as Kennedy's "Rob of the Bowl," and "Swallow Barn," Paulding's "Dutchman's Fireside," Myer's "Young Patroon," Thompson's "Green Mountain Boys," Kennedy's "Horse Shoe Robinson," Paulding's "Old Continental." I also make use of Drake's "Making of New England," Higginson's "Book of Explorers," McMaster's "History of the United States," and Coffin's "Old Times in the Colonies," "Building of a Nation," &c. My aim in recommending these

rather than the heavier works like Bancroft, Hildreth, etc., is to rouse an interest and develop a taste for historical reading and study. When this can be done, Bancroft and Hildreth will take care of themselves."

In addition to oral recitations and the preparation of topics, about one third of the teachers require written exercises. In class, the usual form is the preparation of written reviews, either on the lesson or on a subject studied outside. A very few expect notes to be taken. Out of class, pupils prepare abstracts of paragraphs or of specified chapters; they write theses; they prepare genealogical tables; they make out outlines, summaries and analyses. Two schools report debates as part of their exercises; and one, a prize examination on the knowledge of American history gained by outside study.

Geography, the twin sister of history, has as yet but a cold reception in the historical family. Only about half the schools make it what it should be—an essential and integral part of the study of every period. Nearly half the students have had some geography; it is very doubtful whether they have really studied anything beyond the classical atlas. A few enthusiastic teachers adopt helpful devices such as this, in use in the Buffalo High School.

"Attention is called to geography by questions as to location of places mentioned in the lesson. Failure is met by drawing a map of the state containing the point in question, locating the special place, and several others. Pupils are required to draw state groups—for instance, the Massachusetts Group. This means, to draw Massachusetts, with all the adjoining states in one group, so as to learn its relative position, and to draw Massachusetts, the central state, in detail—the capital, chief places of note—mountains, rivers, in short, anything the teacher sees fit to call for. Drawing on the blackboard is required in some cases."

Others begin the study of each country with a description of its geography.

A fair proportion of schools have an apparatus of wall maps and atlases; the more energetic teachers oblige pupils to locate places and to trace movements. Perhaps one fourth of the schools require map drawing of some sort, although the greater part of it is probably topographical rather than historical. A few use blank outlines, to be filled in by the pupil; or ask him to draw maps from memory upon the board. To judge from personal experience with many undergraduate students, the two things which the candidate for entrance to college does not know are: how to add; and how to remember or represent geographical facts. Historical geography is still almost undeveloped in the fitting schools.

Here the doctrinaire may justly criticise the practical teacher, even without knowing all his difficulties. Whether the pupil is being prepared for college or for business or for home life, his education is of little value if it leaves no definite impression upon his mind. The colleges do not expect that those who come to them shall have a wide historical training, or shall remember a great many facts; they have a right to expect that certain general historical principles may be taken for granted. One of the questions asked of the students was: "Did your previous study of history help you to understand better your college courses?" The answers may be tabulated as follows:

"Yes, decidedly,"	7
"Very much,"	10
"Much,"	2
"Yes,"	42
"Partially,"	12
"In general training,"	4
"In general knowledge from reading,"	7
"Somewhat,"	14
"Hope so" or "think so,"	4
"Not much,"	7
"Very little,"	11
"No,"	37
"Not a bit,"	13
Total,	170

Let us sum up the evidence from the statements of teachers and graduates of the fitting schools. In many schools little or no history is taught; where taught, the best methods are not always employed; where good methods prevail there is often a lack of books and apparatus; where there are the best facilities, pupils sometimes neglect them.

SWEDISH MANUAL TRAINING.

PRINCIPAL ROBERT PORTER KEEP, PH. D., NORWICH, CONN.

Slöjd,* "manual dexterity," "sleight of hand," is the Scandinavian word which designates the manual training given in the common schools of Sweden to volunteer scholars outside of school hours This training is now considered an important item in the equipment of a Swedish teacher. Some two years ago Miss Evelyn Chapman, of England, who has devoted herself especially to Kindergarten work, became interested in the Swedish "sleight of hand." She went to Sweden, and put herself under the manual training as it is given in Stockholm. She acquired thoroughly what was to be taught, and with her growing sense of the value of the system her desire increased to introduce it into England. She felt that the art must be seen in practice in order to be appreciated, and in order that the instruction might perfectly correspond with that given in Sweden, she brought home to England her own teacher, Miss Nyström, of Stockholm, and modestly announced that a summer session of sleight training would open in the rooms of Bedford Grammar School on Tuesday, August 3.

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*Slöjd is etymologically identical with English "sleight."

Bedford is a thriving town of 20,000 inhabitants, not far from Cambridge, and distant about fifty miles from London. It is noteworthy at the present time for the number and excellence of its foundation schools, both for boys and girls. Considerably more than 2,000 scholars of both sexes are undergoing education in the three large schools, the classical school, the modern school and the girls' high school, and there is a community of from fifty to seventy-five highly qualified resident teachers. Bedford is much frequented as a place of residence by parents who have children to educate.

The date of my visit was Tuesday, August 23. I found the sleight class in session in one of the ground floor class rooms of the Bedford Grammar School. The room was an ordinary well lighted school room, the floor, I happened to notice, paved with blocks of wood. Here were gathered the ten or twelve scholars who had been at work already for three weeks of their summer holiday. Their number was not great, but their quality was all that the introducer of a new system could desire. There were among them two headmasters of boys' schools, the headmistress of the Cambridge training college for female teachers, a young lady who had recently won distinguished honors in Greek at Cambridge. It was a novel sight to see women planing and sawing, and dignified scholarly men in their workman's aprons putting together the sides of dove-tailed boxes. The hours of the session were from nine to one daily, with a pause of a few minutes to drink a glass of milk at eleven.

The indispensable tool used by the sleight worker is the knife.' The Swedish knife has a blade two and one-half inches long immovably fixed in the handle, and terminating in a long, sharp point. Besides the knife each worker has a pencil, a square, a saw, an awl, perhaps a pair of dividers, and hammer and nails. For general use there are work-benches of Swedish pattern, but not much unlike those used in our best cabinet shops. Besides there are sets of bits, chisels, gouges and planes. One workbench and one set of tools suffice for four scholars. The following is a full list of the articles which are to be made by scholars as a result of a course of sleight training:

1. Pointer.
2. Flower stick.
3. Penholder.
4. Bird's perch.
5. Flower stick, (square).
6. Key-label.
7. Slate-pencil holder.
8. Dibbler. (Pointed stick for setting out flowers).
9. Forked clothes-pin.
10. Paper knife.
11. Flower cross.
12. Ruler.
13. Knife-handle.
14. Pen-tray.
15. First spoon.
16. Hammer handle.
17. Second spoon.
18. Bracket.
19. Stocking stretcher.
20. Trencher.
21. Flower stand.
22. Butter beater.
23. Footstool.
24. Corner bracket.
25. Nail box.
26. Sugar scoop.
27. Boot-jack.
28. Shoe-brush box.
29. Stool.
30. Knife box.
31. Salt box.
32. Teapot stand.
33. Match box.

These articles are carefully arranged in the above list in the order of their difficulty, and each article is made in a manner and by steps definitely prescribed by the teacher. So simple are the first tasks and so exact the method that it is not possible for one who follows it to fall short of a certain standard of excellence. The wood used is at first a soft wood like white pine; afterwards a harder wood is employed. Each worker keeps in his own drawer every article made by him or her, marking each with his own name, and receiving all at the end of the course for permanent preservation.

No one who should see the company of learners engaged at Bedford in the acquisition of sleight would doubt as to the pleasure which the average person finds in the new aptitude called into being by the system.. All were working with the greatest enthusiasm, as full of delight in their work as children at a picnic, and grudging even the moment's pause for bread and milk at the middle of the session. Here were women who had never used a plane or a bit, and who had had the most rudimentary notions of the construction and use of tools, who had, at the cost of a few weeks' practice, really entered into a new world. Who would hesitate to admit that the experience is a most valuable one, and to desire that a large number of persons may share it?

The great merits of the system appear to me to be: (1) the moderate difficulty of the tasks proposed; (2) the methodical way in which pupils are instructed; (3) the position, subordinate to the intellectual portion of school work, in which the training is firmly held. The fact that the progress is methodical does not imply that the rate of progress is the same for all. Tasks must be done in the same way by all, but each pupil may do as much and go forward as rapidly as his ability permits him. It is a capital merit of the system that it does not profess to confer upon the pupil any handicraft by which he can earn money, but is strictly disciplinary in its character. The articles which the pupil has made at the end of his course of study have little market value. They are simple wood utensils characteristic of a period somewhat prior to the present age of machine products. The articles are not ornaments and would not have money value as such. Hence the learner of sleight does not become in any sense a competitor of the mechanic or artisan; but the fact that he has learned to produce good work gives him an interest in all good work by whatever hand produced. This not only qualifies him intelligently to judge of all mechanical work, but gives him that sympathy with the mechanic of which many persons to their great loss know nothing.

It naturally occurs to me to compare the sleight system with the wood carving which is so important an industry in Switzerland, and which has been practiced with much enthusiasm and no little success in Cincinnati and other towns of the United States. I am disposed to prefer the Swedish system because of the definite forms which it aims to produce by steps which can be exactly described. Success in wood-carving presupposes special talent in the pupil, and if secured does not at the same time confer skill in the use of tools in general. Sleight can be mastered by persons of ordinary intelligence, and gives the learner forever after a correct notion of the use of tools, and some skill in handling them.

Space forbids an attempt to describe the manner in which a simple kind of drawing is practiced in connection with the use of tools. In cutting out a spoon, e. g., the outline is first drawn on the face of the block, and when the wood has been cut away around this outline, then a profile drawing is made upon the side. There is, in other words, a constant application of drawing to construction.

As regards the effects of this training upon the scholar, I should be disposed fully to admit the moderate and reasonable claims which are made for it by Miss Chapman.

It has been already remarked that sleight instruction as practiced in the Swedish schools, is the privilege of meritorious scholars; it is given once or twice a week outside of regular school hours. It is never felt as a burden, it often gives the scholar a new interest in the school, while it sometimes reveals capacity and aptitude previously unsuspected. Children talk more at home about their progress in sleight than in their other lessons, and parents who have little comprehension of ordinary school reports find no difficulty in gauging the advance of their children in manual dexterity.

On the whole any parent might well desire for his child that he be systematically taught the aptitudes and accomplishments which the company of earnest workers at Bedford have acquired during their August holidays, and will sympathise with the pride with which they will carry to their homes the collection of objects and implements which their own hands have made.

Could not some arrangement be made by which Miss Chapman and Miss Nyström might give a practical exposition of sleight by the formation of a class of learners in one of our summer schools? It will be readily seen that it is all important if the matter is taken up at all that it should be taken up in the best manner and thoroughly taught. The writer will gladly give such additional information on the subject as he possesses to any who may address him.

A SWISS HIGH SCHOOL.

The *Kantonsschule* in Zurich is really a boys' High School. It had last year five hundred and seventy-seven pupils, five hundred of these living at home, and the others boarding at houses approved by the Rector. Such an attendance strikes an American as extraordinary. Zurich is a city of less than thirty thousand inhabitants. Its people are thrifty and enterprising, in fact it might be called a wealthy city for Switzerland, though it would hardly pass for such in America. The school exacts tuition. It is not a free high school, and yet in no American city of twice the size can so many boys be found in attendance, even where tuition, books and stationery are furnished without cost. Still further, the conditions of admission are such as make the contrast even more striking. There is nothing more noticeable in the old world than the high value set upon education. People make sacrifices to get it in America, it is true, in single cases, but there is no such general regard and respect for it as in Europe. The fact that a man is first in his department gives him no such eminence in America as in Europe. There is no such attendance at the higher schools. It is a question for serious consideration whether by making education free we have not decreased the appreciation for it,—whether we have not come to despise that which costs us nothing.

The *Kantonsschule* has two parts, the Gymnasium, corresponding closely in many ways to the German gymnasium, and yet with large differences, and the *industrieschule*, not unlike a *realschule*. No boy can enter the *gymnasium* till he has completed his twelfth year, or the school of industry till his fourteenth is completed. In both cases there must be a written application on the part of the parent or guardian, an official certificate of age, and a certificate of diligence and good standing in the lower school. For the gymnasium, there follows an examination by the Rector in German, Geography and Arithmetic. If this is successfully passed, after four weeks of probation, the boy becomes regularly a member of the school. If he fails to satisfy the Rector, in either examination or probation period, he must give up all hope of ever entering the school, because boys are admitted to the lowest class only at twelve years, and at corresponding ages to the classes above. The only alternative is to receive private instruction and, at the end of the year, present himself for another examination which must include also the work done by the class. The requirement for entrance is set forth officially as such a degree of knowledge and preparation as a capable and diligent pupil will obtain by regularly attending a well appointed common school in the canton of Zurich up to the completion of his twelfth year.

In order to enter the gymnasium, then, a boy must leave the cantonal free schools at twelve, for here the direction of his studies changes, but to enter the industrial department he follows the course laid out in the free schools in the secondary department two years longer. Thus at fourteen he comes up for an examination in advanced arithmetic, plane geometry,elementary French, ancient history, natural history and physics. He is also expected to be well-grounded in geography, to present his compositions of the last year and to write during the examination an original composition on some subject given by the examiner. In either gymnasium or industrial school pupils may be received at any point in the course on examination upon the work done by the class in which their age would place them. The grading is entirely by age, and any pupil unable to do the work expected of his age must leave. Exceptional cases are in the discretion of the Rector, and pupils are sometimes allowed to repeat a year, but in the main the effort is to keep the classes of uniform age. This theory of school organization seems to imply much hardship, but I am told that practically it involves little, and, however astounding it may be to an American at first thought, one can see on closer study that there are many and great advantages connected with it.

Later on we give the courses of study in both departments of the *Kantonsschule.* Certain subjects are, however, optional. In the gymnasium these are religious instruction, which may be omitted without the substitution of any study in its place, Greek, Hebrew and Singing. In every case the parent or guardian must send a written statement of his wish. Religious instruction and singing are optional studies in the industrial school, and if these are dropped nothing is required in their place. Besides these there is a choice of English or Italian as shown in the course of study given below.

The school building is well situated on sloping ground with an open square in front and a fine view of the lake and mountains. In a corner of the open square is the Turn-hall, where gymnastics are regularly taught in classes, and in the grounds there are horizontal and parallel bars, wooden horses, etc., etc. The school building itself is in three stories, large, roomy, well-lighted, with wide halls, but with no special attempt at architectural effect, and fitted with furniture hardly up to the American standard. The rooms for laboratory and science work are in a separate building.

There are forty-six instructors, all men. The regular teachers are appointed for six years and usually reappointed. The Rector has no voice in their selection or retention. A still greater anomaly exists in the matter of payment. There are no fixed salaries, but each man is paid according to the amount of work done, that is, according to the number of exercises he hears per week during the year. The maximum amount paid per exercise is two hundred francs, the minimum one hundred and sixty. The maximum number of hours which may be given to any teacher is twenty-five, the minimum, eighteen. So that five thousand francs is the maximum income, as twenty-eight hundred and eighty is the minimum, which any teacher can receive. There is a hardship in the fact that till the programme is made up, no one knows what income he may depend on. The teachers are all men who make teaching a profession, and many of whom have distinguished themselves for scholarship.

Four times every year a report is sent to the parents. For this purpose a book is used, the pages of which are printed in the form of report blanks. Here is recorded the pupil's attendance (there is no blank for tardiness), and opposite each study is a space in which are characterized the progress and diligence of the boy. Numerical marks are not given, but six grades are indicated, viz :—excellent, good, fairly good, moderate, unsatisfactory, bad. These reports are signed by the parents and returned, and at the end of the year the promotion of the pupil is determined solely by these. There are semi-annual examinations, to be sure, but they are always oral and public, and have no connection with promotion.

There is one other distinctive feature of this school, a bright pupil cannot skip a grade. Extra work may be found for him to do, but he cannot, as in many schools, shorten the time of his course by hard work. Another feature is the special work not in the course which the boys do at home, reading classic authors not read in school and reporting for the same.

Some idea may be gained regarding the preferences and tendencies by a careful examination of the courses of study, and then by noticing to what extent the courses are modified by choice. The industrial school course includes five grades, to pass through which requires four and one-half years. The other course has four grades in the lower gymnasium and three in the upper, occupying six and one-half years. The number of hours of *instruction* weekly varies from 33 in the lowest class to 40 in the highest. Those who drop the optional studies can lighten this amount by three or four hours a week, but even then the amount seems excessive. Without doubt the regular practice of gymnastics goes far towards making it possible for the boys to do their work. It may be remembered, too, that there is about the school work none of that rush and tension so apparent in many of our schools. During the summer the first recitation is at seven o'clock, nominally. It closes at eight, and there is a recess of ten or twelve minutes, at the end of which time teachers and pupils leisurely find their places and the lesson goes on till nine, when another recess comes. After eleven there is little except singing and gymnastics, and from twelve till two there is complete rest. From two till four there is work again, with an occasional exercise later. Saturday afternoon is a half holiday, but every forenoon in the week is completely full.

At the beginning of last year there were in the lowest class in the gymnasium 99 boys; in the second, 87; in the third, 83; in the fourth, 48; in the fifth, 42; in the sixth, 40; and in the seventh, 38. The first three were divided into three parallel divisions, the others into two. As far as possible in reading these divisions do *not* take exactly the same work. Of the 87 boys in the second class who had an option, 28 did not take Greek. Of the 83 in the third class, 33 did not. Of the 48 in the fourth class, 11 omitted Greek.

Of the last graduating class, 14 announced their intention of studying medicine; 7, theology; 7, jurisprudence; 2, chemistry; 1, philology; and 1, science.

The industrial school (the name is misleading; in England it would be called a modern side, and in America, a scientific course) is not so popular as the gymnasium. In its lowest class there are thirty-two, and in its highest, only four boys.*

Below we give the course of study in the *Kantonsschule* for the current year April 25, 1887, to April, 1888. The work done last year, though similar, was not the same as far as the portions of authors read are concerned. The selections are each year determined beforehand by the teachers. When titles or numbers are enclosed in brackets, it means that the parallel divisions of the grade did different work, one division reading what is bracketed. The first year of this corresponds with the thirteenth year of the pupil's age. The industrial school course begins two years later.

LOWER GYMNASIUM.

FIRST YEAR.

I. Old Testament History. 2 hours.

II. *German.* Etymology and syntax. Reading and explanation of selected passages of prose and verse. Exercises in oral and written expression, partly original and partly reproductions of things read. 4 hours.

III. *Latin.* Accidence and elementary syntax with constant practice on the forms and easy translations from Latin into German and German into Latin, both oral and written. 10 hours.

IV. *Arithmetic.* 4 hours.

V. *Greek History* to the Peloponnesian War. 2 hours.

VI. General Geography. 3 hours.

VII. Voice Culture and Singing. 2 hours.

VIII. Penmanship. 2 hours.

IX. Drawing. 2 hours.

X. Gymnastics. 2 hours.

Thirty-three hours per week for those who do full work, thirty for those who omit I. and one-half of VI.

SECOND YEAR.

I. The Life of Christ. Mark's Gospel with portions of others. 2 hours.

II. *German.* First year work extended with monthly compositions prepared at home. 4 hours.

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*The following table shows the attendance by classes for the year 1885–6.

	Gymnasium.							Industrieschule.						
	I	II	III	IV	V	VI	VII	I	II	II	III	III	IV	V
									Tech.	Com.	Tech.	Com.		
Whole number	104	88	85	49	41	41	32	32	27	17	27	12	14	4
Left during year	15	4	6	7	4	4		2	6	9	4	9	1	
Studying Greek		59	50	38	32	29	16							

III. *Latin.* First year work continued and extended. Systematic course in syntax. Reading of selections from Lattmann's Reader and poetry from Siebelis' Tirocinium. Constant oral translations into Latin. An original Latin composition every week, and written exercises at home every fortnight. 8 hours.

IV. *Greek.* Etymology to the verbs in *μι*, with constant practice in oral and written translation based on Wesener's Elementary book, Part I. 7 hours.

V. Arithmetic finished. Algebra begun. 4 hours regularly, six for those who do not take Greek. Plane Geometry. Those who do not take Greek have in addition two hours in Geometrical Drawing.

VI. Greek History finished. Roman History to the time of the Licinian Law. 2 hours.

VII. Geography. 2 hours.

VIII. Singing and Voice Culture. 2 hours.

IX. Drawing. (Perspective; from models; practice in color; drawing from casts.)

X. Gymnastics. 2 hours.

Those who omit Greek have also two hours a week in Natural Philosophy treated experimentally.

THIRD YEAR.

I. The History of the Apostolic Age. In all these years the memorizing of passages of scripture and hymns is carried on.

II. *German.* Monthly compositions at home. Oral and written descriptions. Reading. 3 hours.

III. *Latin.* Extension of previous year's work. 6 hours.

IV. *Greek.* Extension of previous year's work. 7 hours.

V. *French.* Etymology and syntax with constant oral and written translation. 6 hours regularly; 7 for those who omit Greek.

VI. Algebra through equations of the first degree with one or more unknown quantities. Plane Geometry continued. 3 hours regularly; 5 for those omitting Greek.

VII. Roman History finished. 3 hours.

VIII. Geography. (Special Geography of Switzerland for those who do not take Greek. 2 hours.)

IX. For those who omit Greek, Botany two hours in summer and Zoology in winter.

X. Singing and Voice Culture. 2 hours.

XI. Drawing from nature; light and shade; landscape; crayon; sepia; aquarell. 2 hours.

XII. Gymnastics. 2 hours.

FOURTH YEAR.

I. *German.* Work of preceding year continued with increased demands on the scholar's ability to work without assistance. 3 hours.

II. Latin Grammar reviewed. Cæsar's Commentaries, I., II., VI. Selections from Ovid's Metamorphoses. Latin composition. 7 hours.

III. Greek Grammar reviewed. Xenophon, Bk. I., II., 5; Herodotus, VI., 94–120; VII., 201–228; Greek composition. 7 hours.

IV. *French.* Reading, speaking and original compositions in French. Recitation conducted in French. 6 hours.
V. *Algebra.* Powers and roots. Quadratic and cubic equations. Geometry continued. 3 hours.
VI. History of the Middle Ages to the Reformation. 3 hours.
VII. Botany in summer. Anthropology in winter. 2 hours.
VIII. Singing. 2 hours.
IX. Gymnastics. 2 hours. (In summer three hours)

UPPER GYMNASIUM.

FIFTH YEAR.

I. *German.* Middle high German grammar and reading. Brief study of the literary and historical development from the 14th century to Klopstock. 3 hours. One hour besides in each week devoted to essays, which more and more, both in form and thought, are expected to show the individual work. An extended essay every quarter.
II. *Latin.* Livy, XXII. Vergil, Æneid. VI. Cicero, Poet Archias. 6 hours.
III. *Greek.* Xenophon's Anab. Bk. IV. Herodotus Bk. VIII. Odyssey Bk. I., II., III., VI. 6 hours.
IV. *French.* As before ; also Plœtz' *Manuel de littérature.* 3 hours.
V. *English.* Etymology and syntax, with constant oral and written translations. 3 hours.
VI. *Algebra.* Logarithms. Progressions. Indeterminate equations. Quadratic equations with several unknown quantities. Plane trigonometry. 4 hours.
VII. Early Swiss History. End of the Middle Ages and history of the 16th Century.
VIII. Natural Science. Mechanics. 2 hours. Natural history. Summer time, Kryptogams. The rest of the year zoology with special reference to the distribution of species and biology.
IX. Singing. 1 hour.
X. Gymnastics. 2 hours.
XI. Manual of Arms. 1 hour. } In summer.
Target shooting. 2 hours. }

(This in part takes the place of gymnastic practice.)

SIXTH YEAR.

I. The historical origin and development of the Christian religion. 2 hours.
II. Readings from Klopstock, Lessing, Schiller, Goethe. Explanations regarding their importance in the history of literature and their connection with our time. 3 hours. One additional hour as in the preceding year.
III. *Latin.* Sallust's Catiline. Cicero's Orations against Catiline I., III., and Caecilius. Horace's Odes and Epodes. Selections from Brandt's *Eclogæ.* 6 hours.

IV. *Greek.* Lysias's Orations, XII., XIX., XXIV., Plato's Apology and Phædo 1-6, 62-67. Iliad I., II., 483, VI., IX., XVIII., XXII., XXIV. 6 hours.

V. *French.* *Manuel de littérature.* Especially the selections from the 17th and 18th Centuries.

VI. *English.* Review and continuation of the study of the grammar. Reading, speaking and original essays.

VII. *Hebrew.* Etymology. Reading. 4 hours in the winter half.

VIII. *Algebra.* Permutations and combinations. The Binominal theorem. Cubic equations. Higher equations, etc. 4 hours.

IX. History of the 17th and 18th Centuries with special reference to the history of Switzerland. 3 hours.

X. Natural Science. Equilibrium and motion of fluids and gases. Molecular energy. Heat. Electricity and magnetism. 3 hours. Inorganic chemistry. 3 hours.

XI. Singing. 1 hour.

XII. Gymnastics. 2 hours. Manual of arms and target shooting, four to five hours during the summer term.

SEVENTH YEAR.

I. Evidences of Christianity. 2 hours.

II. *German.* Two hours to German literature. One hour to composition work as in the preceding year.

III. *Latin.* Cicero de Oratore. Tacitus' *Annales* I. Extracts from Horace's Satires and Epistles. Plautus' Trinummus. 7 hours. During the three years in the upper gymnasium, sight translations, and memory reproductions. Private extra reading at home.

IV. *Greek.* Sophocles' Antigone. Demosthenes, IV., III. Thucydides, Bk. II., 1-65. 7 hours. During the last three years exercises and memory reproductions on the books read. Private extra reading at home.

V. Continuation of former work with increased scope and with special attention to modern writers. 3 hours. During these three years fortnightly independent written translations into French, or short essays in French increasing in difficulty. Memory reproductions. Recitations conducted entirely in French.

VI. *English.* Grammar. Exercises of increasing difficulty. Practice in speaking. 3 hours.

VII. *Hebrew.* Grammar. Reading the prose in the elementary text-book. 3 hrs.

VIII. Analytical Geometry. 3 hours.

IX. Modern history to the establishment of the second French Empire, with special reference to Switzerland.

X. Natural Science. Electricity and magnetism finished. Acoustics. Optics. 4 hours. Natural history. Brief glances at mineralogy and geology. 2 hours.

XI. Singing. 1 hour.

XII. Gymnastics. 2 hours.

The *Industrieschule* consists of two departments, both of which pursue the same course of study during the first year. After the first year there is the technical department and the commercial department, the first of which extends over four years and the second, over two. Pupils who enter this school remain in the lower schools two years longer than those who are to enter the gymnasium proper, and are thus admitted at the age of fourteen instead of twelve, the age for entering the gymnasium. The course for the first year is arranged as follows :

1. *Religious Instruction.* The New Testament writings and the history of the Early Church. 2 hours a week.

2. *German.* Syntax. Formation of words. Reading and memorizing poetry. Oral composition. Written composition. 6 hours a week.

3. *French.* Review of elementary French. Structure of sentences. Constant practice in oral and written expression. 6 hours.

4. *History.* Ancient History reviewed. History of the Middle Ages. 3 hours.

5. *Geography.* General Geography. Europe and Switzerland in detail. 3 hours.

6. *Physics.* Elementary Course, omitting mathematical work. 2 hours.

7. *Natural History.* Introduction to botany and zoology. 2 hours.

8. *Mathematics.* Review and continuation of plane geometry, especially the circle. Applications of algebra to the solution of geometrical exercises. General arithmetic, and algebra through equations of the first and second degree with one unknown quantity. Arithmetic continued through square and cube root. Geometrical drawing (2 hours). 8 hours a week.

9. *Penmanship.* 2 hours a week.

10. *Free hand drawing*, adapted to the skill of the scholar. Drawing of geometrical objects and simple ornaments in wood or plaster.

11. *Gymnastics.* 2 hours.

12. *Instruction in vocal music.* 1 hour a week throughout the course. (optional).

TECHNICAL DIVISION.

SECOND YEAR.

1. *Religion.* Development of the fundamental principles of ethics and religion. 2 hours.

2. *German.* Continuation of the work of the first year with increased demands in the matter of composition. 4 hours.

3. *French.* Continuation of preceding year's work increasing in difficulty. 5 hours.

4. *English.* Instruction in the rudiments. Practice in oral and written translation. Reading and memorizing of easy pieces in prose and poetry. Dictation. 5 hours.

5. *History of the Middle Ages*, continued. Modern History to 1700. History of Switzerland from the organization of the Confederation to 1700. 3 hours.

6. *Geography*, outside of Europe.

7. *Natural History, Zoology.* The lower orders of animals. 2 hours during the winter.

8. *Mathematics.* Plane Geometry continued. Solid Geometry. 3 hours. Algebra. Surds, Radicals, with positive and negative exponents. Logarithms and their applications. Arithmetical and geometrical progressions and their applications. Continued fractions. Equations of the first and second degree with several unknown quantities. Diophantine and logarithmic equations. 4 hours.

9. *Geometrical and technical drawing* 4 hours.

10. *Free hand drawing.* 2 hours.

11. *Gymnastics.* 3 hours in summer. 2 hours in winter.

THIRD YEAR.

1. *German.* Reading and explanation of classical works; Lessing's Mina von Barnhelm; Schiller's Wilhelm Tell and Jungfrau von Orleans; Goethe's Egmont and Iphigenie. Essays. 4 hours.

2. *French.* Continued practice with increased demands in reading and speaking, memorizing, oral and written translation. Easy essays of various kinds. 4 hours.

3. *English.* Continuation of the grammar and practice in speaking and reading. Oral and written translation. Dictation. Short essays. 3 hours.

4. *History.* Modern History from 1700. 3 hours.

5. *Physics.* General qualities of bodies. Laws of equilibrium and motion, of solids, fluids and gases. Acoustics. Instruction, partly mathematical, and partly experimental. 3 hours.

6. *Chemistry.* Inorganic experimental chemistry. 3 hours.

7. *Mathematics.* Analysis and algebra. Logarithms and their applications. Powers of binomials with positive integral exponents. Exponential equations. Combinations. Solving of numerical equations by approximation.

Geometry. Plane trigonometry. 5 hours.

8. *Projection Drawing.* 4 hours in summer, 2 in winter.

9. *Natural History.* Zoology and Botany. 2 hours.

10. *Free Hand Drawing.* Continuation of practice in figures, landscape and architectural drawing in crayon, India ink and colors. Chiefly from nature. 4 hours in summer, 2 in winter.

11. *Gymnastics.* 3 hours in summer, 2 in winter, one of the summer hours being devoted to military drill.

FOURTH YEAR.

1. *German.* History of literature with reading and explanation of classic authors. Practice in ready speaking. 3 hours.

2. *French.* History of French literature with practice in reading, translating and speaking. Written work of increasing difficulty. 3 hours.

3. *English.* Continuation of practice in reading and speaking. Written exercises of increasing difficulty. 3 hours.

4. *Modern History.* 3 hours in summer, 2 in winter.

5. *Physics.* Acoustics, heat, electricity and magnetism. 3 hours.

6. *Mathematics.* Exponential and trigonometrical series. Binomial and logarithmetic series. Spherical trigonometry with applications to mathematical geography; analytical geometry; the straight line and the circle. 4 hours in summer, 5 in winter.

7. *Chemistry and Mineralogy.* 2 hours. 3 hours of laboratory practice in winter.

8. *Natural History.* Kryptogams. Anthropology. 2 hours.

9. *Representative Geometry.* 3 hours.

10. *Free Hand Drawing.* 3 hours in summer, 2 hours in winter.

11. *Gymnastics.* 2 hours in winter. 3 in summer. One of the latter given to military drill.

FIFTH YEAR.

1. *German.* 2. *French.* 3. *English.* 4. *History.* Each 3 hours, and each a continuation of the preceding year's work.

5. *Physics.* Electricity and magnetism finished. Optics. Supplementary survey of physics. 3 hours.

6. *Mathematics.* Cyclometric series. Analytical geometry. Conic sections. 7 hours.

7. *Chemistry.* Analytical chemistry. 2 hours. Simple, qualitative analysis. Laboratory practice. 2 hours.

8. *Natural History.* Geology. 2 hours.

9. *Representative Geometry.* 3 hours.

10. *Free hand drawing.* 3 hours.

11. *Gymnastics.* 2 hours.

COMMERCIAL DIVISION.

SECOND YEAR.

Religion, German, French and English as in the technical division.

5. *Italian.* 5 hours. (This is offered as an optional study to those who prefer it to English.)

6–7. *History and Geography*, as in the technical division with special attention to the development of trade.

8. *Chemistry.* Inorganic. 3 hours in summer, 2 in winter.

9. *Algebra.* Powers. Roots. Logarithms. Arithmetical and geometrical progressions and their applications. 1 hour in summer, 2 in winter.

10. *Commercial arithmetic.* 4 hours.

11. *Theory of trade.* 2 hours.

12. *Book-keeping and accounts.* 1 hour.

13. *Penmanship.* 2 hours.

14. *Free hand drawing*, 2 hours. (optional)

15. *Gymnastics.* 3 hours in summer, 2 in winter.

THIRD YEAR.

German, French and English as in the technical department, with special reference also to business correspondence.

4. *Italian.* Practice in speaking. Extracts from classic authors. Instruction in commercial correspondence. 3 hours.

5. *History*, as in the technical division. 3 hours.

6. *Geography.* With special reference to commerce. 2 hours.

7. *Chemistry.* 2 hours in summer, 1 in winter. Continuation of inorganic chemistry, and the elements of organic chemistry.

8. *Waarenlehre.* The most important articles of commerce in relation to their origin, importance in industry and political economy, statistics of production and use. &c. 2 hours in summer, 1 in winter.

9. *Commercial arithmetic.* Practice in more difficult operations and calculations. 4 hours.

10. *Theory of Trade.* 2 hours.

11. *Book-keeping and accounts.* 2 hours.

12. *Free hand drawing.* 2 hours. (optional)

13. *Gymnastics*, as in the technical division.

NOTES.

An Interchange upon "College Fraternities, pro and con" *will appear in* The Academy *for October.*

In an article on *American Classics in Schools* in the July *Atlantic*, Mr. Horace E. Scudder calls attention to some dangers of the present tendencies in education. The points that Mr. Scudder makes seem to us well taken. Especially valuable is the clearness with which he sees that the schools are not failing and will not fail on the practical and material side. It is in the lack of spiritual life and moral enthusiasm that the danger lies. The over development of the practical is killing the ethical. The perfection of the machine is leading to an under valuation of the personal element in education. Mr. Scudder well says:

> "We have gone quite far enough in the mechanical development of the common school system. What we most need is the breath of life. * * * The tendency of our schools is always toward an assimilation of the common life of the country, and there is no danger that they will not be practical enough. Arithmetic passes into the making out of bills and the calculation of interest. Writing gravitates towards business forms. Geography points to commercial enterprises. Reading finds its end in a Sunday newspaper. But the common life of the country has also its heroic, its ideal temper, and it is the business of those who have to do with schools to see to it that this side is not neglected."

Mr. Scudder's practical suggestions seem to us excellent, although we think he favors American literature too exclusively. His theory, however, we heartily endorse. It may certainly be reasonably questioned whether the vast increase in reading matter offered to the young in these days is profitable, either as regards taste, discipline, or morals. It is found to be financially profitable to publish such stuff as makes up the bulk of juvenile reading matter, and so it is issued. To form a healthy taste for good literature in this enervating or poisonous atmosphere is to the last degree difficult, if not impossible. Such, however, is the task before us and we must gird our loins the tighter and set our faces the more resolutely, the greater the difficulties to be encountered.

The outside of the State Teachers' Association was the best part of it. The coach ride from Westport over the mountains to Elizabethtown was delightful; and the green and blue mountains sur-rounding that village were very restful to the eyes of those who had looked on brick walls and dingy school rooms during the year.

The principal meetings were held in the court house, a little story and a half brick building which looked like a country school. The auditorium by judicious packing, would accommodate about two hundred. A little six by eight ante-room was devoted to an industrial exhibit from New York. The article in this display which attracted most attention was a large wax doll calmly reposing in a home-made bed. Two small rooms up a narrow wooden stair contained drawings and composition work.

Across the street from the court house was a large tent, in which it was intended to hold the evening meetings. This tent looked as if the entertainment committee had borrowed all the cotton sheets in the neighborhood, and having sewed them together, stretched them across a pole. The tent was all top; it had neither sides nor ends, and the seats were the slivery side of a hemlock board. It was unpopular, there being but one session held in it, and at that the audience voted emphatically to hold the remaining services in the court house. The exercises were less interesting than the walks and coach rides among the mountains. There were, however, some good papers, notably, those by Supt. Balliet, of Reading, Pa., and Supt. Foster, of Ithaca, N. Y. Supt. Draper was at his best and was well received.

The best feature of the Association was the exhibit of home-made apparatus from the New Paltz Normal school. There was very little interest in the elections. Principal J. W. Kimball, of Amsterdam, was elected president without opposition.

It was voted to hold the next Association at Watkins.

We much regret our failure to give this month a full report of the Regents' Convocation. The editor was in Europe at the time, and owing to a misunderstanding the gentleman on whom he depended to report the meeting was unable to do so. The editor ventures, however, two or three comments, the more willingly as he was himself a member of the Executive Committee and accepts his full share of the blame. If the Convocation is to win and keep a good name it will do well not to repeat certain acts of discourtesy which were decidedly prominent last summer. In the first place it can hardly be considered good taste for the presiding officer to inform the gentlemen who, at the solicitation of the Committee, consent to read papers, who come long distances and pay their own expenses, that it is a great honor to appear before the Convocation. We are not questioning the fact that it is a high honor, one in fact unparalleled in the annals of pedagogy, we simply insist that the higher the honor, the poorer the taste which puts the recipients in mind of it. Secondly, we do not think it right to request a man to prepare beforehand a careful abstract of his paper for publication unless it is understood that some mention of the paper will be made in the reports. Thirdly, when a man accepts an appointment to discuss a paper, asks for and receives a full abstract of the paper and then fails either to appear in the discussion or to offer any explanation to the writer, there certainly seems to be a lack of consideration. Fourthly, in all cases the persons selected to discuss papers should be persons who can be depended upon to be courteous. No sensible man objects to having his positions attacked, although he may be sorry to have them overthrown. But every man who gives patient thought to the elaboration of an article is entitled to entire courtesy and consideration at the hands of his critics. Discourtesy so extreme that it verges upon brutality is scarcely more useful than ornamental in an educational discussion.

When the Executive Committee met last November to arrange the programme, we urged very strongly that as far as possible on open questions the essayist should be requested to present the less popular side. It was thought that in this way thought would be stimulated, discussion provoked, and the merits of each case more fully reached. It was not expected that abuse would be substituted for argument in the discussions.

From an article in the *Revue des Deux Mondes* for March 1st, 1887, on "Greece in 1887—Its Moral Condition," we extract the following:

The Greek schools are largely patronized by Greek residents of Mussulman countries, where no means of instruction are to be found.

The gymnasia, corresponding to secondary schools, number 36, with 4,704 pupils. The upper primary, or grammar schools, number 327, with 15,875 pupils; while the primary proper, 1,569 schools, count 60,124 for the boys, and 332 schools with 21,899 pupils for the girls. Thus, while among the older people are some uneducated, such is the progress gained within a few years that M. Emile Burnouf, the author of this article, states that in one or two generations there will scarcely be in the whole kingdom an unlettered person. Special instruction, too, is given in wealthy families by skilled teachers; for the modern Greek values education above everything, and has more regard for the well-bred and instructed than for the rich and ignorant. Attention is more and more paid to woman's education. In the Arsakion College at Athens last year 1,376 women were received and 98 took teachers' diplomas.

As soon as a new district is added to the kingdom, schools are established; thus the above figures include Thessaly and the little portion of Epirus added to Greece within five years. In the form of their schools, Germany has been taken as the model.

The question, says Burnouf, has been asked, whether Modern Greek differs much from the Ancient. If a traveler addresses people who have never been at school and speak only the language of the Klephts, he will not recognize at all the Ancient Greek, so much have the words been cut down or lengthened, or deformed in the strangest fashion and mixed with a crowd of foreign words—Albanian, Slav, Turkish, Latin. But this is no more Modern Greek than some one patois is the French language. On the other hand, open a serious book, such as the Greek History of Paparigopoulos, or a good journal, as the "Acropolis," the "Palingenesis," the "Hestia," and you will recognize that excepting some words and changes of little importance, their articles are written in the ancient language with an antique material clothed in French forms.

After having been stationary for four centuries, Greece is now advancing as rapidly as the most advanced nations of Europe.

In *Scribner's* for September Prof. George T. Ladd discusses the "Development of the American University." Instead of describing, objectively, a development actually taking place, Prof. Ladd gives us his idea of the development that ought to take place, in American upper education. While, therefore, he makes an interesting article, he does not greatly elucidate the educational questions that press for settlement. What he, as an observer from the vantage-ground of a professorate in one of our foremost colleges, sees of the movement going on about him, and how he interprets this movement and forecasts its issues, it would profit us more to know than it does to be made even thus fully acquainted with his ideal.

Prof. Ladd's ideal is the German system of gymnasium, real school and university. The Germans evolved, or, rather, there evolved itself in their life, as their needs determined, that which we know as the German system: but our system we are to copy. The birth of our higher education seems to be infinitely delayed. In our despair of ever seeing it unmistakably before our eyes, we begin to doubt whether it is really destined ever to be born at all, and so we talk about adopting a child, already full grown, from another family.

But even though the German university seems to serve well the purposes of many American youth who go abroad to enjoy its advantages, it is quite another question whether the German university will bear transplanting to American soil and serve there the purposes of a number of youth many times as large as the number of those who can travel. Young men resort to German universities to qualify themselves for professorships at home. Few go abroad to hear lectures in university courses proper for any other purpose. From this fact we should infer that probably American life has but partial use for the German university. A great system of educational appliances must have full relations with the intellectual needs of a people. At present, if we hear of a young man studying abroad at a university, we are morally as certain that he is aiming for a professorship as we are if we hear of his studying Latin or Greek after graduation. The highest institution of education in this country must serve manifold interests,—must, in fact, serve all interests that have even though it be only a secondary or indirect relation to scientific culture, and must not run the risk of breeding in and in by making too much of the function of training its own teachers.

As Prof. Ladd looks to the German system as the goal of our development, but has to start from the actual American preparatory schools and colleges, he is compelled to consider the momentous question, how the readjustments are to be made. He finds that we have practically at present no university at all. Our colleges, together with the preparatory schools, are engaged in giving the secondary education. Somehow these must be combined in new institutions, having unity of plan, and bringing youth to the university on either one of two courses corresponding respectively to the German gymnasium and real school.

It follows of course that nearly all our colleges must become, in name and in fact, secondary schools, while a small number must develop into universities. In Germany such a radical transformation, if indeed thinkable in Germany, would be accomplished by legislation. But how is it to be accomplished in these states?

Again, with what device does Prof. Ladd propose to replace the scheme of *privileges* with which the German government rewards youth who persevere through certain stages of the upper education? No German imagines that without this curious means of adding adventitious attractions to the national perception of the excellence of education on grounds universally recognized the gymnasia and universities would thrive as they do.

The German secondary education,—and therefore Prof. Ladd's ideal,—allows no choice of studies, after the original choice between gymnasium and real school is once made. That is, the secondary courses of study will be established by legislation in forms determined by a majority of votes, and will be changed from time to time, as majorities favor change; but every youth must take the secondary education that he finds in vigor in his own day, without choosing for himself. The suggestion might be offered that this rigid denial of personal election of courses is more in harmony with all the features of the German character and the conditions of German life, than with the American character and American conditions.

Perhaps German education reflects the theorizing of educators and the conclusions of legislators to a greater extent than education in this country ever can. American education will perhaps respond more sensitively to immediate demands coming from the ranks of the thinkers and the doers. Certainly it must be remembered that education in this country is endowed by the people far more widely than is the case with European education. The stream of munificence that flows perpetually into educational treasuries in America excites the astonishment of foreigners. This factor in the development of upper education in this country it is very wrong to leave out of sight. Educators will not theorize far away from the people among whom are growing up the magnanimous millionaires.

It may not be unwise to refrain from worry about the development of American upper education. Even if one understood its laws, one could not, for all that, control these laws. But we do not understand them. Schools and colleges that enjoy great resort of youth doubtless have this prosperity by virtue of some happy adjustment to the popular consciousness of the popular needs. Changes in courses of study brought about by the pressure of public sentiment are straws that show how the wind blows. The thing to pray for is that nothing be imposed on our upper education from without, but that its future may come by spontaneous growth from within, and that it be not a copy of any other people's education, but as original and peculiar as the American character itself.

BOOKS RECEIVED.[*]

Sheldon's Elements of Algebra. Sheldon & Co., New York and Chicago.

Health Lessons. A primary book. By Jerome Walker, M. D. New York: D. Appleton & Co. 1887.

Stories of Heroic Deeds for Boys and Girls. By James Johonnot. New York: D. Appleton & Co. 1887.

The Fortunes of Words. Letters to a lady. By Frederico Garland, Ph. D., Author of "The Philosophy of Words." New York: A. Lovell & Co.

Patterson's Language Series. *Advanced Grammar and Elements of Rhetoric.* By Calvin Patterson, B. S. Sheldon & Co., New York and Chicago. 1887.

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[*] Any of these books may be more fully noticed hereafter.

School-Room Classics. XI. *How to Teach Natural Science in Public Schools.* By Wm. T. Harris, LL. D. Syracuse, N. Y.: C. W. Bardeen, Publisher. 1887.

The Study of Rhetoric in the College Course. By John F. Genung, Ph. D., (Leipsic), Professor in Amherst College. Boston: D. C. Heath & Co., Publishers. 1887.

Essentials of English for Schools, Colleges and Private Study. By Alfred H. Welsh, A. M. Third Edition. Chicago: S. C. Griggs & Co. 1887. John C. Buckbee & Co., Sole Publishers, Chicago, Ill.

History of England for Beginners. By Arabella B. Buckley. With additions by Robert H. Labberton. With colored maps and chronological and genealogical tables. London: Macmillan & Co., and New York. 1887.

On the Teaching of Modern Languages in Theory and Practice. Two lectures delivered in the University of Cambridge in the Lent Term, 1887. By C. Colbeck, M. A., Assistant Master in Harrow School; late Fellow of Trinity College, Cambridge. Cambridge: At the University Press. 1887.

The Elements of Chemistry. A Text-book for Beginners. By Ira Remsen. P. vii.–266. Henry Holt & Co. 1887.

Prof. Remsen, in this little work, has added another to his valuable series on Chemistry, and one that will be of the greatest use to those who are teaching it to beginners. He has the true principle of teaching an experimental science, which consists in allowing pupils to observe facts from watching their own experiments, and in requiring them as far as possible to reason for themselves from the facts so observed. The facts presented in this work are in general those of every-day experience, and very little is said of unfamiliar substances, or of abstruse theories. The use of this book in the way indicated by the author cannot fail to result in a good foundation on which to build a thorough knowledge of the science.

Gegen den Homer-Kultus in unseren Schulen. von Dr. W. Fischer. Leipzig. 1887.

Returning to the study of Homer after an interval of forty-five years, and bringing with him all the prepossessions in favor of the poet naturally acquired in school and from current eulogistic literature, Dr. Fischer found himself shocked and disappointed at the Homer which, in his mature years, he had to read. The glamour was gone. In realistic fashion he describes the state of society, the low degree of civilization, the poverty of patriotic sentiment, the poor soldierly character of the warriors as regards courage and duty, the prevailing immorality and the general filth of life, that, as a sober and critical reader, he now finds portrayed in the Homeric poems. Grouping in the space of a very small book the most repellent features of the poems, he succeeds in drawing a dismal picture, even disposing a thoughtless reader for a moment to agree with such critics as Plato, Aristotle and Xenophanes as to the value of Homer in the education of youth.

Edmondo de Amicis. Cuore. Libro per i ragazzi. Milano: 1887.

To show the relation in which the nominal author of this book stands to it, we give his preface entire:

"This book is specially dedicated to the boys of the elementary schools who are between the ages of nine and thirteen, and it might be entitled: *History of a school year, written by a pupil of the third class of a municipal school of Italy.*—In saying, written by a pupil of the third class, I do mean that he wrote it, himself, just as it is printed. He noted down, off hand, in a blank book, as well as he could, what he had seen, felt and thought in and out of school; and his father, at the end of the year, wrote these pages from the boy's notes, striving not to alter the thought, and to preserve, so far as was possible, the very words, of his son. Four years later the latter, being now in the gymnasium, read the manuscript and added some things of his own, availing himself of his recollection, while it was still fresh, of persons and things. This, boys, is the book that you now read. I hope you will be pleased with it and that it will do you good."

The book thus produced we have found extraordinarily interesting. We look through it into the very heart of the school life of a boy in an Italian city, and get glimpses of traits of the Italian character, some of which are profoundly moving. Of pedagogy there is not much, as the real author of the book is a boy, unconscious of the theories according to which he is being educated, and seeing only his mates, his parents and teachers, and the busy world in which his young life moves. But the book is full of *heart—"cuore."* And this means that it teaches those elements of character which we should name courage, devotion to duty, heroism, patriotism, loyalty to parents and instructors. The expression of the emotions natural to parents and children in connection with the inevitable events of school and family life, may be said to form the staple of the various chapters of the book. For any one who has already conceived respect and affection for the Italian character the effect of the book will be to increase this respect and to deepen this affection. The boy into whose life his father thus enables us to look is surely a worthy son of the most brilliant of Italian writers of the present day.

Of a translation of the book that comes under our eye we have only to say that it is perhaps fair, as translations go, but certainly deserves no praise.

Sans Famille. Par Hector Malot. Paris, E. Dentu. Cinquante-cinquième édition. 1887.

Teachers, especially those who are instructing boys between the ages of twelve and fifteen, will no doubt hear with pleasure of a new story adapted to that age, at once well written, deeply interesting, instructive, and constantly appealing to the better sentiments of boy-nature,—an embodiment of "ethics in action." Such is *Sans Famille* by Hector Malot. We say new story with a doubt whether a book that has run through more than fifty editions, though it be within a few years space, can properly be so styled. If comparatively unknown here, it is because it was written for French readers, and translations rarely become widely popular. Surely this book, in its simple, idiomatic style, should be enjoyed, if possible, in the original. Its quality is vouched for by its being an *ouvrage couronné par l'Académie française*; its interest, by the number of editions just cited; a brief sketch will indicate on what its claims are based as regards instructiveness and edification.

It is the history of a waif—a boy of eight years when the story opens—the stolen child of wealthy English parents, abandoned in the streets of Paris, found by a humble stone-dresser, and sent to be cared for by his wife in a poverty-stricken village of central France. Her own infant dies not long after the foundling's advent, and he grows up in its place, tenderly loved and not knowing but that he is truly the son of Mère Barberin.

Shortly after the opening of the story their bread-winner at Paris meets with an accident, which not only prevents his longer following his trade, but produces a decided moral change. He returns to his village, for the first time in eight years, ruined in his prospects and in disposition. The presence of the boy sharing their already insufficient living is intolerable to his now wholly selfish nature, and he soon arranges to be rid of him. Even the possibilities of his one day being claimed by wealthy relatives, which the character of the infant's wrappings gave reason to hope, cannot restrain him, and he disposes of him in his wife's absence to an itinerant musician and showman who chances to pass that way.

This high-minded and, when he will, noble-mannered old wayfarer, Vitalis, is a really grand character, and under his tuition the young Remi begins the development of a like serene, patient, unselfish and independent nature. Vitalis had been a great artist, the most illustrious singer of the operatic stage in Italy, courted even by royalty. As his powers began to decline, he could not endure the thought of a gradual degeneration in the profession that had known him peerless. Accordingly he had broken entirely with his past life, and, after various failures in new fields, found himself at last, with nothing left of the past but his honor and pride, travelling under an assumed name from place to place, with a troop of trained dogs and an almost human little monkey, whose sad fate forms one of the most touching episodes of the whole story, Remi is taught to sing, to play the harp, and to act his part in amusing comedies with his dumb but comical fellow-actors. A considerable part of the first volume details the experiences of these humble caterers to the amusement of the public as they pass from one part of France to another. It also brings us to the death of Vitalis from cold and hunger one wintry night in the outskirts of Paris.

It is chiefly life among the lowly that our story portrays, and while we see frequent instances of baseness and depravity, like Barberin, Garofoli, the Italian *padrone*, and the wretched Driscoll family, who ply in London the trade of Fagin on a large scale, by far the stronger impression is made by generous, loving and loyal characters. Such are the Acquin family, the hard-working florists with whom Remi now finds shelter and a home. But trouble soon comes to them in the form of a devastating tempest. The head of the family is ruined and imprisoned for debt; the children are dispersed, being sent to the care of relatives in different parts of France. This furnishes a new motive as well as direction for Remi's renewed wanderings. He undertakes to pass in the pursuit of his old avocation from one to another of these scattered brothers and sisters, and to keep them informed about each other. A new comrade joins him, destined to become a life-long friend. This is Mattia, an Italian boy of about his own age, one of the victims of Garofoli, a youthful *virtuoso* of humble rank. The pair first turn their steps to the coal regions of Southern France. The reader is made to breathe the very atmosphere of the place, and share the sadness that broods over it. He learns the story of the coal-beds and many of the details of mining, while the dangers of the occupation are realistically set forth in the narration of the fearful adventure in a deluged mine, where Remi proves himself a genuine hero. Later they go together to England in search of Remi's parents, but this is perhaps the least pleasant part of the book. If not sensational beyond certain other parts of the story, it is so in a less attractive way. A successfully plotted escape from the hands of the police, for example, leaves a disagreeable impression even if the person is innocent.

The postscript is said often to contain the gist of the letter. Those who are proposing to read the book will easily pardon the reviewer for giving no more than a sort of a postscript reference to the wealthy English lady whom our waif meets early in the story travelling about France for the health and recreation of her invalid son. They journey far and wide, altogether by river-courses and canals, in a sort of specially constructed canal-boat on which they make their temporary home. With them, and afterwards in search of them, Remi visits still other neighborhoods. In its dénouement the story is satisfying to the most exacting optimism of childhood.

As a lesson on the geography and topography of France the book is very valuable. The reader almost feels as if he had made a pedestrian tour himself. The completeness of the system of inter communication by means of natural waterways and canals will be a revelation to most foreign readers. Better, however, than all its other lessons are its indirect teaching of unselfishness, tenderness and sympathy for dumb animals, the love of family and friends, loyalty to these, courtesy and the desirableness of good manners generally, virtues in which, it is safe to say, the American boy stands quite as much in need of training as his contemporaries in distant France.

THE ACADEMY:

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DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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THE TEACHING OF MODERN LANGUAGES.

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Three hundred years ago, when in consequence of the predominant influence of Charles V. and Philip II. the Spanish language was commonly written and spoken by the higher classes in Italy, France and Germany, Marguerite of Valois, the sister of Francis I., looking upon the matter from a truly feminine point of view, expressed herself as follows: "We learn Spanish because it is incomparably superior to French in the power of declaring the passion of love." Much as we may feel tempted to smile at such a view, the reasons for which modern languages are commonly studied to-day are hardly more solid than the one given by the fair author of the "Heptameron." Let us look for a moment at some of the generally prevailing characteristics of modern language study. Whereas Latin and Greek are looked upon as means of mental culture, and the classical teacher is expected to be a scholar, modern idioms are mostly studied either as a more or less useful help in travel and trade, or else as a kind of fashionable accomplishment like music and dancing, and the majority of modern language teachers bring little more preparation to their work than the mere circumstance of birth in a foreign country. The methods of study are, of course, adapted to this lofty aim. Pronunciation, usage, grammar are learned, and even classical authors read, *not* with a view to acquiring accurate scholarship and entering into the genius of the language and the nation, but for the purpose of carrying on the much desired small-talk in the shops of Paris and Rome. Hence, if you point out to your students the agents at work in the formation of speech; if you attempt to facilitate their labor by comparing facts and forms of language kindred to each other, by disclosing a principle where there seems to be anomaly, or if you wish to explain the tendencies or allusions of a literary work by referring to the historical, social or other conditions out of which it developed, you are likely to meet with an indifference that might be quite exhilarating if it were not still more deplorable. In short, it is the acquisition of a number of empty words and phrases that is usually taken for the study of a modern language, and it is for this very reason that some classical scholars are still inclined to deny to modern language study the power of disciplining the mind. And well may they think so, for such ends and methods are indeed unworthy of the name of education.

What is language? It is both the product and the indispensable instrument of man's reason. And what is the language of a nation? It is the product and the instrument of the complex activity of a nation's life, religious, intellectual, social and political. It is therefore our key to a people's history and character. Hence it has been justly said that with every new language acquired man develops in himself a new sense, a new element of culture. *And here indeed lies the true value of modern language study for a liberal education.* In these times of continually increasing facilities for literary and scientific intercourse, and of frequent travel and interchange of citizenship, when the material and intellectual progress of one nation becomes the possession of others, and the constant contact of national characteristics and tendencies exercises an ever more complicate influence upon the development of national character in all its multiform manifestations, it is nothing less than an imperative duty of every man that would claim to be liberally educated to get access to the channels through which flow these streams of modern thought. Literature, like science, has become cosmopolitan. English or American literature cannot be understood apart from that of Germany and France.

Again, there is locked up in modern languages, and especially in French and German, so much information essential to modern science and art that no one ignorant of them can hope to pursue a learned or scientific calling with anything like thoroughness and success. The minister, the physician, the lawyer, the naturalist, the teacher of any branch of knowledge, they all must at least have a good reading knowledge of French and German, if they would keep pace with the march of modern science. No one, for instance, is at present considered a classical scholar who cannot read in the original the important contributions which Germany has made to classical philology in the last fifty years, and is making every day. The same applies to the student of English or any other modern language. *French and German, then, are important to us as the avenues to modern culture and science.* But more than this. No one competent to judge denies at the present day the truth of Goethe's oft-repeated remark, that he who knows no other language, knows nothing about his own. The English language and literature do not have their roots in themselves, and therefore cannot be explained by themselves; they form a member of a group of kindred languages and must be studied in connection with and in the light of these. For every student of English, then, be his object an intelligent knowledge of his literature such as every educated person ought to have, or the teaching of his mother-tongue, a somewhat intimate acquaintance with German and French, but especially with the former, is absolutely necessary.

There are, however, still other reasons for a thorough study of modern languages, and one of them is that they are of the greatest value to us *as* languages, for the study of language in general. For, whereas Latin and Greek, which thus far have been regarded as the basis of all linguistic study, are only known to us through a comparatively limited number of documents telling us very little of their history, the formative processes of modern speech can be followed up step by step by strict historical proof, and lie within the range of our own scrutiny, thus revealing to us the laws underlying the life and decay of language. In disclosing the secrets of their creative processes, the *living* languages are invaluable for the study of the *dead*, whose history lies without the reach of our direct, critical test, and is recorded only in an imperfect way by native grammarians. The comparative study of the eight Romance tongues, which are the offspring or continuation of the popular language of Rome, carried by the Roman merchants and legions from Italy into the Provence, Gaul and the Spanish Peninsula, the study of these languages, I say, has become a source of revelation lighting up many a dark page of the history of Latin. The Romance idioms have in common the leading features of the source from which they descend. Such traits, therefore, as belong to the whole Romance family must have existed in the every-day speech of Rome, while those occurring only here and there in the Romance territory, cannot have been inherited from the Latin, and must have their origin elsewhere.

To illustrate. Until very recently it was inferred from the frequent omission of *m* and *n* in Latin inscriptions that Latin had nasal vowels something like modern French. Now, let us hold the lamp of Romance philology a little nearer. Vocal nasalization is *not* found in Italian, Spanish, Catalan, Provencal, nor in the Raetian dialects spoken in the Grisons, in Tyrol and the Italian district Friule, nor yet in the Rumanian. It can therefore *not* have existed in Latin at the time when these provinces were settled. Still more. The critical examination of assonance and rime in French poetry gives us the positive proof that vocal nasalization did not fully develop in France before the sixteenth and seventeenth centuries; and that it did not exist at all before the eleventh century, that is, fully one thousand years after the Roman occupation of Gaul. It is evident, then, that nasal vowels were not transmitted to French by the Latin. Finally, the comparative study of modern languages and dialects has brought to light the highly interesting coincidence that nasal vowels occur precisely in those sections of western Europe which had been longest occupied by the Celts, that is, in France, Portugal and in southwestern Germany and Northern Italy; and, as it is known that the ancient Gauls had a tendency to nasalize *i* and *u*, we may ascribe vocal nasalization in French, Portuguese, in south German and north Italian dialects to Celtic influence.

So intimate indeed are the relations between Roman and Romance, or between old and new Latin, that it is indispensable for the Latin scholar to be familiar with the results and methods of Romance philology, as on the other hand the student of a Romance idiom must have more than a shadowy knowledge of the Latin language and literature.

But there is still another lesson which we may learn from the relation of Romance to Latin; one which has a particularly practical bearing on our subject this evening. It is often claimed by the advocates of the traditional system of education that the classics, and especially Latin, ought to form part of our school curriculum because a knowledge of them is of great assistance in the acquisition of Italian, French or other modern idioms. Not to speak of the fact that this is only a one-sided way of saying that the experience and knowledge gained in acquiring one language helps us in mastering another, and especially a kindred language, there is a well established pedagogical principle which argues very forcibly against making Latin the basis of modern language study. This principle is that we should proceed from the known to that next allied to it, and thus gradually approach the unknown. The application of this principle to our case is obvious. In order to comprehend the elements of civilization of ancient nations—language, institutions, customs, laws and so on—removed from us by a distance of nearly two thousand years, we must first have grasped the language and culture of our own times and of previous stages of development. Just imagine for a moment a boy of to-day taking a mental leap of nineteen centuries into an age and a people of the character and conditions of which he cannot form even an approximate idea, and toiling over Cæsar's commentaries on the Gallic war preparatory to the study of a French book, the subject of which is in full sympathy with his own world of ideas; or think of a girl plodding her way through Vergil's account of the amorous intrigues of Dido and Æneas, as a first step toward enjoying a French love-story! Instead of such a perverted course, let us follow the modern idioms as our trusty guides from the world of thought of to-day up through the succeeding stages to the language and culture of Rome and Athens. In other words, in the school curriculum of the future the study of Latin must be based on a previous course of modern languages.

Now, the Romance tongue nearest allied to English is French. This language, while exhibiting on the whole the same analytical structure and tendencies as English, will arrest the scholar's attention by a greater wealth of inflection, by new types of phrase-setting, by a new phraseology characteristic of a Romance and Roman Catholic nation, by an entirely different accent, all these traits which step by step introduce him into the peculiar spirit of Romance speech. Under the guidance of a trained teacher the student will learn to compare forms, usages and constructions with corresponding ones in English, such as *royaume* with *realm*, *je ne fis que rire* with "I did but laugh," *de mon vivant* with "on my going," and will thus form habits of observation and inquiry. But what is of equal advantage to him is the abundance of suitable reading matter that French literature places at his disposal.

Having acquired a sufficient knowledge of French in a course of not less than two years, and with his powers of observation quickened, the student is prepared for a fruitful study of Italian which is now to go hand in hand with that of French. Melodious Italian! which, living on the soil of ancient Latin and preserving most faithfully its character, stands with one foot planted in antiquity and with the other in the very midst of modern culture. Here the student will find a greater wealth of sonorous vowels, of inflection and of syntactical forms. Instead of the French plural sign *s*, stamped upon this language by the conquering Teuton, the Italian exhibits the three vowel-endings *i*, *e* and *a* which come nearer to Latin types. The comparison of Italian with their equivalent French forms will disclose to the scholar many of the agents at work in the formation of language, because Italian is etymologically plainer than French. The frequency of gerundial and infinitive constructions, especially the so-called accusative with infinitives, and of elaborately constructed periods, will gradually prepare him for the struggle with the more difficult style of the synthetic language of Cæsar and Cicero. Italian literature, again, is instinct with Roman thought and culture, for it is in Italy that the majestic current of Roman life continued to flow long after its course had been arrested or changed in the other provinces of the Roman Empire. Italian culture may be called Latin cast in new forms.

Now, considering this gradual advance from the familiar to the more uncommon, from analysis to synthesis, from modern to older types of language and thought, does it not stand to reason that the student will enter upon the study of Latin with far greater ability, with far more zest, and that he will accomplish much more in less time than he who approaches Latin grammar with hardly an idea of the country where, and the people by whom the language was spoken? Is it necessary to say that such a course of language-study would take away all the dreariness usually attending the hours devoted to Latin declensions and conjugations? It would result in a reform and revival of Latin scholarship. *Modern languages, then, besides being important for the invaluable information stored up in them, form an essential part of scholarship for the student and teacher of English and other tongues.*

Now, having found what are the *true objects* of modern language study, we may turn to the discussion of the *best methods*, for method, as its name implies, is the way leading to the end in view. If, as we have seen in the course of our remarks, the true value of a knowledge of modern languages lies in the fact that it gives us the necessary material for original observation and comparison, supplies us with standards of criticism, widens our horizon and discloses to us the character of men, it is obvious that only *such* a method of study is worthy of adoption as shall awaken and quicken our powers of comparison and inquiry, and ensure to us the advantages to be derived from such study. Now, which *is* that method? Is it the so-called "natural method" of our enlightened nineteenth century, which, treating adults like children, leaves the pupil to the mercy of good luck as regards pronunciation, and feeds his mind on edifying questions and answers like: "Is this a finger?" "Yes, this is a finger!" Is it the celebrated method of Ollendorff, whereby the pupil's ingenuity is exercised on dialogues such as: "Have you seen the green goggles of my uncle?" "No, sir, but I have seen the cheese of the Italian." Is it the method of those quacks of education who, equipped with the requisite amount of ignorance, promise by their "meisterschafts" or "simplified" systems to teach you German in less months than a native can learn it in years? Or, is it, finally, the time-honored grammar method with its various modifications; which expects you to learn rules, that is generalizations of facts which as yet you do not know; which puzzles you with exceptions to rules and exceptions to these which may not occur in a lifetime; where you memorize noun and verb forms which out of their context convey no accurate meaning at all; where, often, for the sake of convenient classification heterogeneous facts are grouped together and kindred ones separated? Many of the defects of grammar here mentioned admit of correction or removal, no doubt; but the principal objections to grammar as the starting point of instruction remain, namely: (1) that by putting precept before example, grammar fails to train the mind for independent observation, and (2) that it teaches the use of words and word-forms out of the natural connection in which they occur.

We may, therefore, set down as the *first* principle of a rational mode of modern language study that grammar—that is theoretical grammar—must be at the end, not at the beginning of the course, and as the *second* principle, that the complete sentence must from the very outset be made the basis of instruction.

Before proceeding, however, to discuss the application of these principles, it seems advisable to say a few words about the age when the systematic study of languages should begin. Now, as this method of instruction is not to consist in the mere memorizing of vocables and phrases, but is to call into play the judgment and a sufficiently developed command of the mother-tongue, the conscious study of a foreign language should not begin until these conditions are fulfilled, that is, as a rule not before the completed eleventh year. Undertaken at an earlier period, the learning of a foreign tongue is more likely to result in injury than in gain to the youthful mind. Of course, this restriction does not apply to children who during a stay abroad learn German or French almost as unconsciously as their mother-tongue.

And now to the method. First in order is *pronunciation*, and this must at the very outset be taught according to strictly scientific principles, for inaccurate ideas once received, vicious habits of articulation once formed, cannot easily be corrected afterwards, even by the best teaching. As we learn our mother-tongue unconciously, so to speak, we are not made aware of the actions of the organs which are brought into play in the production of sounds; we have no conscious control over them; unfortunately, too, the schools have thus far failed, and are still continuing to do so, to teach us the conscious use of our organs of speech. Pronunciation is professedly taught in our schools, to be sure, but the instruction is based on utterly false principles, inasmuch as it clings to the mediæval way of mistaking the letters, that is mere symbols, for the sounds, and leaves the child in darkness as regards the nature and production of sounds. As long as this evil continues, it is of paramount importance that the teacher of foreign languages should at once give the beginner a clear idea of what he is doing in learning new sounds and new words, that he should give him at least a modicum of conscious control over the organs by which he is to produce those sounds. Such a control will not only prove an invaluable aid in acquiring a correct pronunciation, but, what is of equal importance, it will be a potent factor of mental discipline.

Passing now over to the language itself, the whole instruction must, as we have seen before, be based on the *complete sentence*, *not* on separate vocables. These sentences must make good sense and must be adapted to the mental grasp of the pupil. Furthermore, as the mind cannot easily grapple with two difficulties at once without neglecting one, the subject of these sentences should, if possible, be familiar to the learner, so that he may turn his whole attention to the language.

For a class of children of the age of eleven or twelve we should therefore recommend as first reading matter nursery-rimes and fairy tales in their French or German garb. Let the teacher first read a sentence aloud, in the natural way, then several times more slowly, marking every syllable and sound. The class then repeat, singly and in chorus, the teacher carefully watching their utterance. After this, the book is opened and word for word explained, the pupils being invited to find out as much as possible by themselves. This exercise will be found very fruitful and inspiring both in French and German, but especially in the latter, on account of its close affinity with English, and it might on the whole be better to take up German first. We must of course proceed very slowly at first, but omit no opportunity to make every word teach its lesson. In order to fix spelling, let the pupils write out the vocabulary of each lesson, the English word opposite the German, and invite them to find out similarities or differences between both. In the first stages of the study, the lessons should be prepared in school under the guidance of the teacher. Never must the beginner be made to learn a word or a sentence before he pronounces it correctly. Thus the scholars are gradually introduced into the language and its thoughts, and with their power of observation quickened by constant exercise, they delight in comparison and inquiry. As they advance, the teacher will as far as possible use the new language as a means of communication, and by calling attention to groups of similar facts furnished by the knowledge acquired, will train the pupil's capacity of discovering what is common to them. Thus grammar is taught by the inductive method. At the proper time the fairy tales or kindred subjects may be replaced by fables and anecdotes, the language of which must be mastered in the same manner; and, if possible, such anecdotes and fables should be selected as will throw light on the peculiar character of the respective nation. Interest in the subject matter begets interest in the language. At this stage preparation at home may profitably assist the work in the class-room, and the pupil should be directed in the use of a dictionary. Translation ought to be resorted to only in cases presenting especial difficulties, and this for two reasons. In the first place, the time thus gained can be used for practice in speaking and writing, by questions and answers based on the language of the text; in the second place, the use of English reacts on the purity of pronunciation. The comparison of forms and phrases is to keep pace with the pupil's growing capacity, and it will be none too early to make him acquainted in a moderate way with the results of modern philology as elucidating etymology, inflection, construction or usage. By way of illustration reference may be made here to Grimm's law of consonant shifting, to the formation of the past tense of English and German verbs and similar correspondence. As an exercise in writing, dictate to the pupil a number of questions based on the text, and let him write out the answers at home. In the next grade, reading matter descriptive of the geography, the history, the manners and customs of the respective country will be found most appropriate and instructive. For such purposes the primers used in the public schools of Germany and France may prove most convenient and useful, and for French we may recommend an excellent book recently published in this country by Professor Rougemont: "La France, son peuple, ses institutions." Such a course of reading, combining as it does, variety of subject and language not passing beyond the learner's ken, has the double advantage of keeping up his interest in the study and of preventing his command of the language from becoming narrow and one-sided. Grammar is to be constantly studied by collecting similar facts and drawing conclusions from them, and can be best practiced by oral and written exercises confined to the language of the text. It will now be time to give the pupil in a few brief remarks an idea of the history and the affinity of the new language with other forms of speech. Thus the instruction continues, the difficulties ever increasing commensurately with the advance of the learner in knowledge and mental grasp. Writing is practiced and improved by reproducing, contracting or expanding a given piece of text, such exercises being kept strictly within the limits of the actual command of the language. Translation from English into the foreign idiom, which, unless carried on in the customary bungling fashion, taxes the highest powers of discrimination and presupposes considerable experience in the use of the language, is far too difficult for learners, and therefore yields no satisfactory results. Great care must be taken not to read promiscuously language belonging to different epochs. For the first three years at least the pupil should only be made acquainted with the language used in the good society and literature of the present day. As soon as earlier forms of the language are taken up, they should be presented distinctly as such, with their peculiar orthography, grammar and usage; and the reading of such earlier literature must be accompanied by the study of the history, institutions, customs, etc., of those times.

Thus, it is believed, the young scholar may in the course of three or four years acquire an intelligent and accurate knowledge of one or two modern languages, and will have strengthened his powers of observation. Of course he cannot be expected to speak the language as fluently as a native, for that comes only from a long stay in the country where it is spoken; but he is equipped with the knowledge and the mental training necessary to make the best use of such advantages, and has penetrated in some measure at least, into the genius of the nation. Such a conscientious, thorough study of language—English or foreign—will lead to greater modesty and conscientiousness of criticism than can be found at present. It will lessen the almost incredible number of those who, without ever having taken the pains to acquire an accurate knowledge of even their own language, are yet ever ready to sit in judgment over and condemn the carefully weighed opinions of those who have bestowed upon the subject their best years, their most conscientious efforts and their best thought.

It is, however, not intended to say that the method here outlined should under all circumstances be adhered to in every detail. It wants a teacher equipped with a scientific knowledge of the language, and pupils whose habits of study can still be moulded. With more advanced scholars who are familiar with one or more kindred languages, it may prove advantageous to go over the essentials of grammar forms, that is, the articles, the pluralization of nouns, the variation of the adjective, the pronoun and especially the verb, and as soon as the auxiliaries and probably the first regular conjugation are learned, to take up an interesting book of moderate compass, with simple language, drilling the scholars in pronunciation, forms, usage and syntax, and discarding translation as soon as possible. In every case, the *main features* of our method will be found practicable and efficient. These are: (1) pronunciation taught in the light of modern phonetics; (2) reading made the centre of instruction; (3) the reading-matter closely adapted to the mental grasp of the pupil; (4) translation avoided wherever possible; and (5) the whole course pervaded by a truly scientific spirit.

It remains for us to ask how the future teacher of language must prepare himself for his work? No one, it is hoped, will deny that the teacher must know his subject, that he must be a scholar. The question then comes up: What constitutes scholarship in the language teacher? This question is answered by the results of modern philology.

As has been said before, the first indispensable qualification of the instructor in modern tongues, whether English or foreign, is a mastery of modern phonetics. As speech is made up of sound, the knowledge of sound is essential to sound teaching. How can we, for instance, understand, direct and, if necessary, correct the mode of articulation of our pupils, as long as we cannot analyse into its constituent elements our *own* utterance? Every nation has peculiar habits of articulation which act as an impediment in the acquisition of foreign sounds. We must know these habits if we would succeed in counteracting their influence. For the teacher of German, for instance, it is important to bear in mind that the English use the tongue more extensively than the lips, whereas on the other hand the lips play a conspicuous part in German articulation. Hence the English tendency to diphthonguise vowels and to vocalize final *r*; hence, again, it is a serious blunder for our grammars to say that German *t* is the same as in English. Besides pronunciation, however, the science of phonetics is indispensable for the study of etymology and morphology which repose upon it as their foundation.

The second indispensable qualification of the language teacher is a comparative and historical knowledge of language. No modern idiom has its roots in itself; hence we cannot correctly explain or account for the simplest forms of its present phase of development without knowing its past. Ask a native German for the meaning of his adage: *Morgenstunde hat gold im munde.* He will readily tell you: "Morning-hour (the sunrise) has gold in its mouth," for "mouth" is the only sense now attached to the simplex *mund.* Yet *mund* does *not* mean "mouth" in this case. Not to speak of the fact that the rising sun with its beams of golden light does not suggest the image of a mouth, but, as far as we know, always did suggest the picture of a bow with its arrows, or of a hand and fingers laden with gold or roses, we have a positive proof that *mund* in this saying means "hand" and nothing else. Our adage occurs in the Skandinavian dialects, and in Old Norse reads as follows: *Morgunstund hefir gull i mund.* Now *mund* is the dative of *mund* "hand," "protection," whereas "mouth" would be *munni*, from nominative *munnr* "mouth." In Old Norse *mund* hand and *munnr* "mouth" are still kept distinct, as in Old and Middle German, whereas in modern German the two words have converged into one form, just as the modern English *cleave* represents the two distinct Anglo-Saxon verbs *cleofan* to split, and *cleofian* to stick. *Mund* "hand," "protection," is akin to Latin *manus*, and occurs in Anglo-Saxon, Old German, and in the modern German nouns *vormund*, "protector," "tutor," and *mundel* "ward." Our German saying must therefore be rendered: "Sunrise has gold in hand." Or suppose the inquiring pupil wants to know what the apostrophe means in *grand'chose*, *grand'mere*, and a number of similar instances. Girault-Duvivier and the whole genus of surface grammarians tell him that, for some mysterious reason, the silent *e* of the feminine gender was dropped. But this is false, because these forms date back to the time when *grand*, like many other adjectives, had but one termination for both genders, as is also shown by the legal formulas *lettres royaux*, *ordonnances royaux* for *royales*. The apostrophe in such forms was introduced by grammarians ignorant of the history of the language. And so we might go on showing how *surface* grammar and *surface* teaching systematically prevent the learner from getting at the *bottom* of things, from getting at the *trnth.*

A third element of a language teacher's scholarship is familiarity with the geography, the history and the institutions, etc., of the respective country or countries, all of which have largely contributed to make the language what it is.

A scientific knowledge of language is not only a duty of every teacher, but it is to him an inexhaustible source of pleasure and inspiration. Modern philology cannot be ignored by any teacher of language, English or foreign. He who is not willing to accept its results and methods, must show them to be false; if he cannot do that, he must admit them as true and make them his own. And, if it is once granted that the results of modern science are true, then it is sheer folly to say that they have no practical bearing on the teaching in the common school. What shall we think of the teacher or educator who would have us believe that what is held to be *the truth* by modern science, should be withheld from our children, from our school children who come to us with the most implicit confidence that we shall tell them the truth and nothing but the truth! That at the tender age when thought and character are moulded for life, the child's mind should be impregnated with fallacies which ever after shall rankle in it! That the very foundation on which all further study must repose, should be rotten to the core! The man who would keep the light of modern science, that is, of what is held to be the truth of to-day, out of the school room, ought to hold his peace forever on matters pertaining to education. Nowhere is the light of English philology needed more than in the primary classes of English in our public schools.

To conclude. If modern language study in the future is not to be deprived of its best fruits, if it is not, as heretofore, simply to result in the ability to prattle in a foreign tongue or to get the drift of thought of a novel, but if, instead of this, it is to imply the acquisition of accurate scholarship by conscientious labor, of a familiarity with a nation's thought and genius, and if it is to be a means of mental discipline, it must undergo a radical reform. Only when the occupation with mere signs shall have given way to a thorough study of sound, when the vocable as well as the phrase shall serve to disclose the ideas animating them, when the work of literature shall be read as a treasure of thought rather than as an exercise for parsing, when the language shall be studied as a key to the nation's intellectual life, then, and not until then, will the knowledge of modern languages form part of a liberal education, then, and not until then, will modern language study join its sister disciplines in inspiring the pupil with that love of inquiry, with that insatiable thirst for truth which Lessing professed when he said: "Not the truth of which any one is, or supposes himself to be, possessed, but the upright endeavor he has made to arrive at truth, makes the worth of the man. For not by the possession, but by the investigation, of truth are his powers expanded, wherein alone his ever growing perfection consists. Possession makes us easy, indolent, proud. If God held all truth shut in his right hand, and in his left nothing but the ever restless instinct for truth, though with the condition of forever and ever erring, and should say to me, Choose! I should bow humbly to his left hand, and say, Father, give! pure truth is for Thee alone!"*

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* Trans. by Mr. James Russell Lowell in "Among My Books."

GERMAN PRONUNCIATION.[*]

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The dialects of Germany can be grouped in two large divisions, namely: Low German, spoken in the northern part of the country, and High German, spoken in the middle and southern parts. Although the literary language originating in Luther's translation of the Bible has been gradually adopted for colloquial use by the educated in all parts of Germany, there is, nevertheless, a broad distinction to be made between the southern pronunciation and the northern. Luther adopted the most widely used High German dialect, which the southern provinces did not hesitate to speak with their sectional peculiarities of pronunciation, since they did not find it in other respects different from their wonted speech. The North Germans, on the hand, were confronted with a totally different dialect, and, therefore, in their pronunciation they tried to follow more strictly the spelling of the words. Thus, although the northern pronunciation was in a measure a foreign one, its greater uniformity, together with its conformity to the spelling, gave it enough weight to be considered when the desire to form an ideal "best German" resulted in a sort of compromise between the northern and southern pronunciations. That a "best German" is as yet spoken in any particular province of Germany cannot be claimed. In reality it can be heard only upon the stage, where indeed uniformity of speech was a matter of necessity from the beginning.

The northern pronunciation has always made a clear distinction between the voiced consonants *b*, *d*, *g*, *j*, *z*, and the voiceless *p*, *t*, *ch*, *k*, *s*, which latter alone obtain in the south. However, the South Germans acknowledge this distinction to be rightly made, and are careful to imitate it, as are they also with regard to *ü* and *ö*, which they have some difficulty in distinguishing from *i* and *e*. The North, on the other hand, will have to give up its predilection for *sp* and *st* and will have to lengthen the vowels in monosyllables like *gross*, *Bad*, in conformity to the southern *schp*, *scht* and *grob*, *Bad*. A compromise in which North and South make nearly equal concessions, is seen in the pronunciation of other sounds as given by Vietor: for instance, in the much discussed *g*; in the *ei* and *au*, for each of which the South distinguishes two sounds according to their derivation from different sounds in the older language; and in the open and close *e*, between which the South distinguished more consistently than the North on historical or etymological principles. Whatever in this matter is not yet quite settled in Germany, is of little importance to the foreigner, who need be concerned about disputed points only in so far as their discussion throws further light on the exact pronunciation of German sounds.

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[*] Wilhelm Vietor, German Pronunciation, Practice and Theory, Heilbronn: Henninger Bros. 1885, New York: B. Westermann & Co.

What is of greater importance to one who wishes to acquire a good German pronunciation, is to know what tendencies of his own language he has to avoid. These differences between English and German pronunciation have been excellently stated by Vietor. They are pointed out repeatedly for every sound treated, and no better idea of the value of this little book could be given than by a summary of the principal points therein to be heeded.

1. English *r* invariably exerts some influence on a preceding vowel, thus; *i*, *e*, and *u* all have the same sound before *r*:—*dirt*, *pert*, *lurk*. In German, however, these vowels preserve before *r* the pure sound which they have in all other positions: *Hirt*, *Pferd*, *durch*. The German *r*, it must be remembered, is always trilled and always distinctly pronounced, while final *r* in English is often not heard at all.

2. In English, voiced consonants are always preceded by long vowels, while even diphthongs are shortened before voiceless consonants. Compare *node* and *note*, *rise* and *rice*. Hence arises the tendency to pronounce short all vowels in German that are followed by a voiceless consonant. The *i* is as long in *Gebiet* as in *fiel*, not shortened as in English *feet*; the *o* in *Noth* is no shorter than that in the English *node*; the diphthong *ei* is as long in *Eis* as in *Eil*, while it is shortened a little in English *ice*; the *a* in *bat* (bade) is long while it is short in *hat* (has).

3. The most important difference between German and English articulation is the greater use that in the former is made of the lips. The German *ü* sound, like the French one, cannot be produced without a rounding and protruding of the lips; also in *u* and *eu* (=*oi*) the lips are distinctly rounded and even *o* and *sch* participate in this lip-rounding.

4. In this connection it may be mentioned that in pronouncing the German *a* the mouth is commonly opened much wider than is ever done in English. The English dislike that mobility of the features which their speech articulation imposes upon the Germans and still more upon the French. We find therefore that the position of the jaw is entirely disregarded in the English systems of

vowels as given by Bell and Sweet, while the German phonetician Trautmann makes the angle of the jaw in a measure the basis of his vowel-system.

5. In unaccented syllables in English, the vowels become more or less indistinct, while in German though in this position they are shortened a little, they distinctly retain their quality. *Königin* must not be confounded with *Königen* and the *a*, *o* and *u* in *niemand*, *Antwort*, *Abzug*, are not different in quality from those in *Mann*, *Wort* and *Zug*.

6. Voiced consonants never occur as final in German; *b*, *d*, *g*, final, are always pronounced *p*, *t*, *ch*, and final *s* is always voiceless. Nothing sounds so un-German as a disregard of this simple law.

7. Not so well known is the law that the German language uses long consonants only in the very rarest instances. To pronounce *Lamm*, *Mann*, *jung*, like *lamb*, *man*, *young*, is anything but German. *M*, *n*, *ng*, *l*, and *r*, which in English are held so long after a short vowel, must always be spoken quite abruptly in German.

8. The German close *e* (French *é* fermé) is a sound unknown in English. It will take some time for a student of German to learn to distinguish it from the open *e* in *there* or *bet*, but in every case the difference is plain to a German ear. No pains therefore should be spared to accustom the ear to this sound. To articulate it is not difficult when it is once recognized.

9. The use of the "glottal stop" before all initial vowels in German is another point of good pronunciation that is generally overlooked by foreigners because their ears are not able to detect the unaccustomed sound.

10. *L*, *t*, *d*, *sch* have a more forward articulation in German than in English; they should be made with the point of the tongue against or opposite the upper rim of the teeth. The English articulation between the blade of the tongue and the opposite palate produces what to German ears seems a much thicker sound.

11. Long *i* and *u* in English are really diphthongs composed of a long, wide *i* or *u* followed by a short, narrow *i* or *u*; *feel* and *full* being pronounced *fîîl* and *fûûl*. In German both sounds must be made strictly monophthongal as in *nur* and *Gruss*. With regard to *u*, the diphthongal articulation may be prevented by rounding well the lips from the beginning.

12. It may be noted that as a rule the German vowels are long in open syllables, and that the long vowel has the close or narrow sound and the short vowel the open or wide sound. Compare *Rede* and *fest*, *Igel* and *Kiste*, *Ofen* and *offen*, *öde* and *öfter*, *du* and *Dust*, *müde* and *Hütte*. This is the principle on which Vietor seems to have

decided the disputed question of the open and close *e* and his decision commends itself especially to foreigners, because it at least provides them with a certain criterion for deciding which *e* they have to do with. Even the Germans will have to abide by a decision that at all events coincides with the usage of the majority, unless they adopt a spelling by means of which they can keep apart these two *e*'s.

Disputed points of pronunciation are not dwelt upon by Vietor in this treatise; they would in fact only confuse the student of German, who on the other hand can rely on Vietor's statements as embodying that which by adoption on the stage and by the general consensus of educated Germans, can be considered a standard German pronunciation. In acquiring another language the foreigner's principal aim should be to rid himself of the errors into which the tendencies of his own vernacular might lead him. To have pointed out such divergencies between English and German is the principal merit of this little book. After a few pages devoted to remarks upon the "best German", it gives forty-eight pages to the discussion of the "German sounds and how they are represented in Spelling." Then to make his teaching more practically available he takes up his subject from the opposite point of view (pages 59—92) and reviews singly "the letters of the alphabet and their phonetic values" in German. There are about eight pages on "German Accent and other peculiarities of German pronunciation" and the last twenty-three pages contain "Specimens" in prose and verse, of which the pronunciation is indicated by a very simple system of sound-notation.

It is strange that on page 24 the lengthening of the *a* in English *hard* should be attributed to the *r*, whereas it is simply the effect of the law stated above under No. 2. That the *r* has nothing to do with it can easily be seen by comparing *hard* and *hart*, *Thursday* and *thirty*, *harp* and *garb*.

In using the book, Americans should keep in mind that the English pronunciation referred to is that of the South of England or London, as given by Sweet in the Handbook of Phonetics and "Das gesprochene Englisch." The American pronunciation seems to be less thick and diphthongal and therefore not so far removed from the German in the purity of its vowel sounds. This however does not institute a drawback sufficient to diminish in the slightest degree the usefulness of the book. Whoever has given any attention to this interesting study, will acknowledge that he has reaped therefrom practical benefits to his own pronunciation and also useful hints by which he has been able to materially advance his pupils in the acquisition of a foreign idiom.

HISTORY IN HIGH AND PREPARATORY SCHOOLS.

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II. HOW HISTORY MAY BE TAUGHT.

If the previous paper in the September ACADEMY be trustworthy, historical instruction in the secondary school is not in a satisfactory state; pupils who are sent to college come indifferently prepared, and pupils whose education ends with the high school are not well grounded in the elements of history. The defects are in part beyond the power of teachers, principals, or even school boards. Suitable text-books are lacking; trained teachers are not to be had, or are overworked; there are no funds for additional instruction, or for libraries and apparatus. Other defects are simply those of arrangement, and the efficiency of the work may be increased by a little thought on the part of the principals. A more serious trouble is, in many cases, a wrong aim on the part of the teacher; he does less than he might do with the material and means in his hands. The attempt will be made to point out some methods which require no considerable increase of expense, and which may be applied by any competent teacher in any good school.

In general, the schools give less time to history than its importance justifies. If the work be undertaken at all, pupils ought to be sent out with a permanent impression of the history of at least one country, and with some facility in finding things out for themselves. The requirements of the colleges are certainly no criterion of what ought to be taught. Two hours a week, throughout a four years' course, is perhaps as much as can be expected, and is sufficient for a thorough and practical grounding in history.

How to divide the allotted time among the various periods and countries, is a perplexing question. Ancient and mediæval history has a peculiar value, in that it presents to the mind the workings of human nature under circumstances unlike our own; there is a further practical advantage in the greater abundance of good text-books. On the other hand, there is a stimulus in the close connection of modern history with present events. If a great deal of time is devoted to the subject, ancient, mediæval, modern European, English, and American history, may each be taken up separately. Where the time is limited, it is a clear waste to devote it to small "universal" histories, unless accompanied by enlarging comment. It is far better to study in a larger way the history of one or two countries: the United States and England are first in importance: then come Greece, Germany, France, Rome.

There are two systems of arrangement of historical courses: the first is that of chronological succession, beginning with the most remote and ending with the most recent; the second is the German method of working from within outward: the child begins with his own town or city, then studies his district, then his State, then Germany, and perhaps finally arrives at the nebulæ and the United States. The difficulty with the latter method is the danger that the pupil will leave off before he has learned how much greater is the world than his horizon; and in this country there are few good elementary books on local history. To begin with ancient history, again, means that a certain number of pupils never will reach the history of their own country. Perhaps the best principle is to begin with that period which is most likely to be interesting and important; in most cases the history of England or the United States is the best introduction. Where literature or art is systematically studied, a double interest may be created by making those studies run parallel with the history.

Let us now pass to the every-day work of the class-room. In all historical teaching the first principle to fix in the mind of pupil and teacher is the importance of accurately established facts: and the second principle is the worthlessness of detached facts. From the beginning, it should be understood that a knowledge of facts is not a knowledge of history; that the text-book simply selects and groups a very small number of facts, and that the essential thing is to know how facts are related and what they mean when viewed together. There are, therefore, four co-related aims which the teacher must keep constantly in mind. He must teach facts; and for that purpose the text-book and recitation system is best adapted. He must show the relations between facts; and lectures and talks will bring out those relations. He must accustom the pupil to assemble facts for himself and to test them; the topical method affords the necessary training. He must lead the pupil to think and judge a little for himself; the preparation of topics and outside reading will induce some degree of independent thought.

The recitation system requires for its success a good text-book.*

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* The following text-books are used in the schools which replied to the writer's circular. They are here arranged under each head by classes in the order of the number of schools using them: in the classes, the arrangement is alphabetical.

General. *Swinton.—Anderson.—Sheldon, Thalheimer.—Barnes, Fisher, Freeman.—Edwards, Green, Guizot, Quackenbos, Robertson, Taylor.*

The old fashioned "school history," with its mass of unimportant detail, overloaded with military history, has rather given place to new books of two types. On the one hand we have the various "Young Folks' Histories," in which the "story" is developed. On the other hand is the class of excellent school histories which include the social and economic side as well as the political. The topical method has its special helps in the "Topics and references" and "Outlines" just now coming forward. For pupils who are likely to go farther, the "story" books are best: for those who have but the one opportunity a more compendious book is desirable. In every case good and accurate maps are much more serviceable than illustrations, and the pictures should represent real things and persons. The value of a book is much increased if it contains good review questions, especially if they group into new combinations the facts that have been learned.

What is learned from the text-book ought in most cases to be confirmed in recitations, less as a test of faithfulness than as a supplement. The actual memorizing should be confined as narrowly as possible. A few things must be learned by heart and when forgotten learned again, to serve as a frame-work about which to group one's knowledge: without knowing the succession of dynasties, or of sovereigns, or of presidents, or the dates of the great constitutional events, the pupil's stock of information will have no more form than a jelly-fish. But these few necessary facts ought to be clearly defined as the sole memorizing expected. The story must be told in the pupil's own words. His interest may be stimulated in a variety of ways. Actual discussion or quiz is hardly to be expected from those who have only the foundation of the text-book, but the utmost freedom of questions should be encouraged. Photographs and pictures may be brought in. The report on the news of the day, common in some city schools, may often be made to hinge upon the lesson in hand. The reading of illustrative extracts, of other accounts of the same affair, or of a suc-

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Ancient. *Historical Primers.—Barnes, Swinton.—Hawthorne.*

Greece. *Smith.—Fyffe, Pennell.—Barnes.*

Rome. *Leighton.—Creighton.—Smith.—Pennell.—Merivale.—Anderson, Comstock, Gibbon, Schmitz.*

Mediæval and Modern. *Mackenzie.—Anderson, Myers.—Barnes, Lord, Simes, Stillé, Taylor, Yonge.*

England. *Anderson.—Lancaster.—Stowe.—Green.—Gardiner.—Berard, Guest, Thalheimer.—Collier, Gurnow, Dickens, Freeman, Green, Hallam, Lamonte, Mavis, Phillips.*

United States. *Barnes.—Higginson.—Johnston.—Scudder.—Anderson, Quackenbos, Swinton.—Andrews, Holmes, Johnston's American Politics, Mackenzie, Macy.*

ceeding lesson, will add interest. In a word, the recitation ought to give the pupil something that does not appear in the book.

Nor should the teacher be content with direction. It is his special duty to bring out the cause and effect of events: and it must be done by his words and not by the pupil's. The preparation is a severe task for a hard-worked teacher; but if he does no more than to read one or two extended accounts of the ground of the day's lesson, he will have a fund of comment and illustration. Perhaps the ideal of teaching would be to make the text-book only the connection and ground-work for a series of simple lectures. It is possible only with conscientious students: and the necessary control of the note-books adds a great deal of labor. In advanced classes, bright pupils may sometimes be trusted to prepare a talk for their fellows. A very happy effect may often be produced by introducing some outsider, into the class room, or at another hour, who shall give a prepared lecture on some subject illustrating the field of study. In any town large enough to sustain a good high school may always be found intelligent people able and glad to say something effective. This system has been admirably marked out in the Old South courses of lectures for young people, given in Boston every summer to audiences of hundreds of children and older people.* The important thing to remember in talking or lecturing is that the lecturer ought not to add bewildering facts, but to set in order and explain the principles governing those already acquired.

One of the most learned historians in New England is accustomed to say that he no longer tries to remember any particular thing, but only where to find it. American schools and even American colleges have been slow to recognize that the ability to find out what one wants is as essential a part of historical training as the ability to remember facts and to understand the relations between them. The topical method is an attempt to give instruction in research; and at the same time it is often a superior method of presenting facts. Its advantages are that it teaches the pupil to examine and use books; it throws upon him an educating responsibility of choice; it leads him to select the important from the unimportant; it obliges him to compare and collate authorities; it gives him the pleasing sense of discovery. Nor does it require large libraries, or a great expenditure of the teacher's time.

In one form, the topical system supersedes text-book recitation:

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*Mr. Edwin D. Mead, 73 Pinckney St., Boston, who organized these courses, has prepared an account of the work done in the last five years, which would be of value to any teacher, and which he would doubtless send gratuitously on application.

the whole field is divided into successive topics which are prepared by all pupils; and the recitation is held on the subject and not in any book. But the topics may also be used as adjuncts or occasional exercises. In fact the great advantage of the system is that it can be applied by each teacher to the circumstances of his own school. In selecting topics care should be taken to make them cover only one simple subject: questions should be avoided about which little definite information is to be had; to a child's mind a negative result is a failure. Biography lends itself easily to this method; any number of subjects of about equal difficulty may be found, and it is easier to secure a lucid, well arranged report. Where the topics are numerous, the teacher owes it to his pupils to give them a good outfit of specific directions and specific references: for an occasional theme it is an excellent plan to turn a pupil loose into a library; but where he is expected to learn something valuable about his topic in a short time, he must not be discouraged by the mass of books; he must have his clue.

The writer recommends the following system where the topics are occasional only. Let the topics be given out in groups; a set of geographical subjects; a set of biographical subjects; a set of narratives; a set of military subjects; and so on: set each pupil his own individual topic out of each group. When the group is given out, a circular of directions should be issued meeting the questions most likely to be asked and the difficulties most likely to arise, and prescribing a form in which the answers are to be returned.* Pupils should then be put on their own resources: as their topics are all dif-

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*The following, taken from circulars prepared for one of the writer's college courses, will illustrate the system:

U. S. HISTORY (13).—SPECIAL REPORTS.—No. 5.—1886-87.

SLAVERY TOPICS.

(*Due April* 28, 1887.)

Object. The object of the fifth report is to familiarize the students with the literature on slavery, and to give them a detailed knowledge of some incident in the slavery contest.

Scope. To each student is assigned some phase or event in the history of slavery, upon which he is to write a condensed narrative, to consist chiefly of statements of fact and quotations.

Authorities. Students will be held reponsible for all the information upon their topic to be had from—

1. The reserved books; the principal works upon slavery will be found among them.

2. Any special books bearing upon their special topic, to which access can be

ferent, they cannot use each other's work; as they are all of the same kind, a few books will suffice for their sources, and the teacher can more easily control the work. Some provision should be made for giving a little help to those who have, after honest effort, failed to find authorities. The return of the work in the precise outward form required should be insisted upon, because it is of such vast importance to be able to put information into a shape useful to another person: and the labor of handling the papers is thus greatly reduced. There is plenty of room for originality in the choice of books and the selection and arrangement of facts. Great care must be taken to prevent the pupil from simply reproducing what he finds in one or several books. From the very outset, the pupil should be taught always to append a brief bibliographical note, setting forth the sources of his information and giving exact references to volume and page. Bright pupils may criticise each others work; and the selection of the best papers to be read in class, will be a reward. In cases where the whole work is topical, there may be one general set of directions. With classes of any considerable size, the specific references should include several common books on each topic, so as to make sure that the pupil has the opportunity of using at least one. Both teacher and

had through the card catalogue of the Library, or through any of the bibliographical helps enumerated in the *Outline*, § 14.

In general, students are expected to find and to use everything upon their topic in the Library.

Verification. Students must give exact references to every passage from which they have drawn information; they are requested to verify the references upon the final draft of their report, before handing it in.

Opinions. In several cases the report calls for a statement of the opinions of classes of individuals upon the subject under investigation; in such cases please give significant quotations.

Conference. The assistant will be in the Library on Monday and Wednesday from 10 to 1 and 2 to 3, and in Massachusetts 2 on Friday from 10 to 1 and from 2 to 3, to advise as to methods, and to suggest books to those who have been able to find nothing on their subject. The instructor will gladly give any assistance, from 7 to 8 P. M.

Form. Make all reports on the special ruled paper recommended for taking notes; entering dates at the right, subject matter only in the middle column, and references in the wide column at the left. Write only on one side of the paper. Let the sheets be attached together. Do not fold the paper. Let your report be logically arranged, point by point, with the heads of it indicated by catch words or under lining. Do not exceed the limit indicated on the topic given out.

Time. The report should take from four to six hours; please note upon the blank the time actually spent, as a guide to the instructor in making similar assignments in the future.

pupil will find useful some of the printed topical outlines mentioned below.*

The topical system, and good teaching of any sort, is dependent on books of reference. Every school ought to have a library, convenient, and accessible every day and all day. It need not be large; in most places, if the school funds are insufficient, contributions of books or money may make up a small collection. Pupils should be encouraged to buy books, and it is worth while to put into their hands a brief list of the books most desirable for them to own. The library should include at least the following works:†

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*The following works, containing lists of topics, in most cases with references appended, have come to the notice of the writer. He would be glad to have his attention called to others.

Charles K. Adams: in his *Manual of Historical Literature.* N. Y., Harper & Brothers, 1882.

Charles K. Adams: Questions and Notes on the Constitutional History of England. Ann Arbor, Sheehan & Co., 1879.

John G. Allen: Topical Studies in American History. Rochester, Scrantom, Wetmore & Co., 1885.

William F. Allen: History Topics for the use of High Schools and Colleges. Boston, D. C. Heath & Co., 1886.

Henry L. Boltwood: Topical Outline of General History. Chicago, Geo. Sherwood & Co.

[*Charles F. Dunbar*]*: Political Economy, VIII.* [*History of Financial Legislation in the United States.*] [Cambridge, printed by William H. Wheeler, 1886.]

[*Charles F. Dunbar*]*: Topics and References in Political Economy, IV.* [*Economic History of Europe and America since the Seven Year's War.*] Cambridge, William H. Wheeler, 1885.

Charles S. Farrar: History of Sculpture, Painting and Architecture. Chicago, Townsend MacCoun, 1881.

William E. Foster: References to the History of Presidential Administrations. N. Y., Society for Political Education, 1885.

John I. Short: Historical Reference Lists. Columbus, A. H. Smythe, 1882.

Martin L. Smith: Brief Compend of the History of the U. S. Boston and New York, Leach, Shewell and Sanborn, 1886.

[*Frank W. Taussig*]*: Topics and References in Political Economy, VI.* [*History of Tariff Legislation in the United States*]. Cambridge, William H. Wheeler, 1886.

George A. Williams: Topics and References in American History. Syracuse, C. W. Bardeen, 1886.

The list price of these books ranges from twenty-five cents to one dollar; any of them might be had in quantities for school use at a considerable reduction.

Prof. Franklin B. Dexter, of Yale University, and Prof. John B. McMaster, of the University of Pennsylvania, have manuscript outlines of American History, for use in their own classes. The pamphlets of Prof. Dunbar, Prof. Taussig, and Dr. Hart are designed for use in connection with particular courses in Harvard College.

† The following books will be found of great assistance in selecting a reference library, or filling up gaps in one already formed.

Lyman Abbott: Hints for Home Reading. N. Y., G. P. Putnam's Sons, 1880.

A good atlas of modern geography, *Andrèe's* or *Stieler's* are the best, and furnish most for the money;

An historical atlas;

A standard encyclopædia, biographical dictionary and gazetteer;

Lalor's Cyclopædia of Political Science;

Ploetz' Epitome of Universal History (for chronology);

One or two classified library catalogues (for bibliography): the most useful are the *Brooklyn*, *Milwaukee*, *Peabody*, *Boston Athenæum;*

Collections of historical texts like *Poore's Charters and Constitutions*, and *Preston's Documents illustrative of American History;*

The standard histories of each period and country studied;

Sets of briefer compendious histories like the *Epoch Series* and the *Story of the Nations* series;

Some of the handier biographies;

A few selected historical novels.

Good illustrated books are likely to awaken interest. If books are wanting, they may sometimes be borrowed for a few days or weeks, and a working collection in some particular topic may thus

Charles K. Adams: Manual of Historical Literature. N. Y., Harper & Brothers, 1882.

Osmund Airy: Books on English History. London, Simpkins, Marshall & Co., 1886.

William F. Allen: History Topics for the Use of High Schools and Colleges. Boston, D. C. Heath & Co., 1886.

William F. Allen: Reader's Guide to English History. Boston, Ginn, Heath & Co., 1882.

H. Courthope Bowen: Descriptive Catalogue of Historical Novels and Tales. London, Edward Stanford, 1882.

William E. Foster: References to the History of Presidential Administrations. N. Y., Society for Political Education, 1885.

Lynds E. Jones: The Best Reading, Second Series, Priced and Catalogued Biblography [*Current Literature only.*] N. Y., G. P. Putnam's Sons, 1882.

Charles H. Moore: What to Read and How to Read. N. Y., D. Appleton & Co., 1875.

Frederic B. Perkins: The Best Reading. N. Y., G. P. Putnam's Sons, 1877.

Noah Porter: Books and Reading. N. Y., Charles Scribner's Sons, 1881.

I. A. Spencer: Course of English Reading. N. Y., James Miller, 1873.

William G. Sumner, U. E. Foster and others: Political Economy and Political Science. A Priced and Classified Bibliography in the Economic Tracts of the Society for Political Education. First and Second Series. N. Y., 1881, 1882.

G. A. F. Van Rhyn: What and How to Read. New York, D. Appleton & Co., 1875.

The prices of American books now in print may very easily be found in Leypoldt's American Catalogue, N. Y, 1880–1885: it is now out of print and very expensive. Exact titles of American books by authors as far as the letter R may be found in *Sabin's* unfinished *Bibliotheca Americana*, which costs upwards of four hundred dollars.

be made. Where there is a library, it should be drilled into pupils' minds that they do not learn history unless they use it.

If a taste for historical reading is thus formed, it is likely that pupils will read for themselves at home. It is easy to suggest in class, books that illustrate the subject under discussion. It may even be desirable to make out and distribute lists of general readings, parallel with the subject.* In some schools pupils are encouraged to give the substance of their outside readings in recitation. The free use of books may further be encouraged by clubs and debating societies, and by public discussions.

From the beginning of historical instruction to the end, geography should be made an integral point of the work. No teacher should expect his pupils to understand history without making clear to them the physical features of the country described. Fortunately there are good physical wall maps of most countries; and excellent and cheap little relief maps begin to appear.† When we come to historical geography, there is a dearth of good atlases and maps. *Freeman*, *Andrèe* and *Spruner* are expensive, and neglect America; *Rohde's* little atlas is foreign; *Labberton* is not wholly accurate. Whatever atlas may be used, the teacher ought to supplement it by a set of historical maps of his own manufacture. By using outline maps, which may be had on scales large and small for most important countries, and by utilizing the power stored in the minds and fingers of his pupils, the teacher may, in a few years, have a set of unique maps. No topical work is more interesting to the pupil than the preparation of maps. Elaborate drawing-rooms and expensive supplies are not necessary; a few cheap water-colors and brushes, and a roll of outline maps or of stout paper, are all that is necessary; and geography will have a new meaning to the pupil.

The proper teaching of history in the secondary schools calls for no new, complex, or expensive, methods; there ought to be a good text-book for a basis of fact; a good teacher to explain the facts; a good library as a source of facts; and good practice in the use of the library, as a training to the judgment.

BIBLIOGRAPHICAL NOTE.—The titles of many books, pamphlets, and articles on the teaching of history may be found in *Hall and Mansfield's Hints toward a Select and Descriptive Bibliography of Education*, Boston, D. C. Heath & Co., 1886. These gentlemen have added a few words of instructive comment to most of the titles. Recent articles on the subject are to be found in THE ACADEMY for June, 1886, in the *Moderator* for May, 1887, and in *Education* for June, 1887. The latter is by *Dr. Francis N. Thorpe*, who has also reprinted from *Education* a pamphlet on *American History in American Schools, Colleges and Universities.* Hints on historical study and historical reading may be found in the *Old South Leaflets* and *Old North Studies in History*, prepared by *Mr. Edwin D. Mead*, in connection with the free popular lectures which he has directed; there are brief hints in *Mr. Geo. L. Fox's Study of Politics in Unity Clubs and Classes*, Chicago, Colegrove Book Co., 1885. *G. Stanley Hall* has also edited a book on *Method of Teaching History*, D. C. Heath & Co., Boston, 1885. Many of the topical outlines contain suggestions.

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*Such a list was printed in the May number of THE ACADEMY.

†The Society for the promotion of Christian Knowledge, London, publishes a serviceable little relief map of Europe, and there are numerous German publications, besides *Bevan's* convenient *Royal Relief Atlas*.

AT A GERMAN UNIVERSITY.

PROF. G. H. HOWISON, UNIVERSITY OF CALIFORNIA.

It was a with a strange sense of long-cherished hopes at length fulfilled, a sense thrilling yet difficult to realize, that the writer of the present sketch and his companions in travel found themselves actualy within the fatherland of Lessing and Goethe and Schiller, of Leibnitz and Kant and Fichte and Hegel. Hitherto these impressive masters of the "thoughts that breathe and words that burn" had necessity seemed voices rather than real persons belonging to this common world of every day; but now we were veritably standing on the soil where they had stood, and our eyes were unquestionably beholding the very scenes that they had looked on; our former world of half-mysterious romance was turning into visible fact. Soon, in the course of the surely advancing days, we were to stand in the presence of teachers, themselves already famous, and listen to their living words, who had actually seen and heard some of these great men, and had even enjoyed their habitual companionship.

We were on the way to the University of Berlin. For we had said to each other, "Let us go directly to the intellectual centre." Our period of University life, by stress of circumstances, was to be all too brief; our secret of success in it must therefore lie in getting at its type forthwith; and our Plato, our Aristotle and our Hegel had taught us that the type, in all things, is to be looked for in the most developed example. So to Berlin we were hastening, with its acknowledged pre-eminence, with its two hundred and forty teachers, and its six thousand students.

Having been duly inspected, approved and recorded by the Argus-eyed police, and being at length settled and "at home," we cast about for the information needed to guide us most surely and directly to the goal of all our aims—entrance to the University. We pick up at a convenient book-store a copy of the *Verzeichniss der Vorlesungen* (list of lectures) for the coming semester. We find in this pamphlet, printed in quarto, plain and homely and without even a paper cover, the titles of all the courses of lectures to be delivered from November to March ensuing. To each is appended the more or less distinguished lecturer's name and official rank—professor, extraordinary professor or *privat-docent*, as the case may be; and also the number of times a week that the lecture will occur, with the day and hour assigned to it. There is a note, likewise, showing whether the course is given *publice*, *privatim* or *privatissime*. The distinction at first confuses us a little; but by comparison and some inquiry we at length discover that a lecture *publice* means one open to all members of the University without fee; that a course given *privatim* means one to which admission can be had only after personal application to the lecturer, and upon payment of a fee, unless the latter is waived by specific notice; and that *privatissime* signifies a most intimate selection of a few candidates by the lecturer, to be instructed in a manner at once informal and minute, in some topic for which they have superior preparation; the instruction may be *gratis*, and usually is so, though sometimes a fee is charged. The lectures *privatim*, with fee, usually number from four to five a week; those *publice* vary from one to three or four in the same period; those *privatissime* are of frequency to suit the wishes of the lecturer.

From *Verzeichniss*, supplemented by inquiries, we learn that the privilege of attending lectures, except merely by way of a visit or so, belongs only to persons who have been duly matriculated as members of the University in some one of its four Faculties—of Theology, Law, Medicine and Philosophy. To be matriculated, the applicant if not so lucky as to be a foreigner, especially an American, must be in possession of *Abiturientenpapieren* (departure papers) from the gymnasium through whose curriculum, covering nine years, he has successfully passed; or, if he has already entered some other university, from that; showing how long a period he has spent there, and that he left in good standing. For the lucky (or, perhaps it should be more truly said, the unlucky) American who has not had this gymnasium training, entrance is possible by simply presenting a passport from his national Government. The German *Universitätswesen* is nowise responsible for *him*, as he is to have no career in the *Vaterland*—no position in the theological, legal or medical profession, no station in the military or the civil service; if his own nation does not care, and if he is content to pay his money and get such benefits as he can from attending the exercises, it is nothing to the *Rector magnificus* and his *Herren Professoren*, or to the higher magnates above them in the *Staatsministerium* for education and public worship. All which arrangement works, on the whole, most happily and beneficially for the *Studirende aus Amerika*. As a rule, none of us go except college graduates; and those find themselves tolerably well equipped for the university work that they undertake.

Our inquiries, and searching of the *Verzeichniss*, have at length made us aware that, to be matriculated, we must find our way to the office of the *Ober-Pedell* (Top-Beadle) of the University, and learn what he has to say to us in the way of directions. We accordingly proceed to a wing of the University buildings, and, on the ground floor, first door to the right from the entrance, we find his official sign. Knocking, we are admitted to a large, low-ceiled room, in comfortable confusion, where sits before a fire-place, smoking a long-stemmed, porcelain-bowled pipe, of the pattern German prints have made us so familiar with, a long-limbed, iron-gray, beardy man, who proves to be the officer with the resounding title. His majesty is all in the title, however, and he welcomes us kindly and heartily, and promptly gives us the very simple information that all we need to do is to present ourselves any day after the tenth of October, at the office of the *Herr Registrar* just opposite his own, where we shall learn what is the next step.

On the tenth of October, then, as aforesaid, we are punctually present at the opposite door. On entering, we find ourselves the solitary applicants. Nobody else is in any hurry, for the matriculation and lectures are not to come for five weeks more. The *Herr Registrar* takes matters with comfortable composure, only being careful, when we think to inquire whether perhaps there is not some less formal way for mature persons like us to get to the lectures than by matriculating and paying, to say, courteously but firmly, "Thoroughly not!" So we pay our eighteen marks apiece, and he furnishes us with a stiff, dull-blue card, which will enable us to pass the sacred precincts of the *Aula*, when the time comes, and get into the presence of the Academic Senate. We go about our business, take our ease in our inn, amuse ourselves with sight-seeing, visit the galleries of art and the great museums, increase our power to communicate in German, polish up our studies, and cheerfully abide the flood of time until the actual beginning of the winter semester shall arrive.

At length the long-expected fourteenth of November is come. We push aside the curtains of our chamber in the early morning, with ardent expectancy. We are not disappointed. Though the season for rains is well advanced, fate is propitious, and it is a glorious autumn day. At nine in the morning, we set out on the happy walk to the University buildings. We are not less than two miles distant from them, and our way leads along the fairest and stateliest streets in the city, to where, fronting the *Opernplatz* and the unpretending palace of Kaiser Wilhelm and the superb equestrian statue of his great ancestor Frederick, rises the principal building of the University. We take in its good and simple proportions, its severe and sparing decorations in the most restrained manner of the Renaissance styles. Over a somewhat low basement rises a lofty upper story, the whole forming three sides of a quadrangle open at the street front; or a long rectangular main-building, running east and west, with two projecting wings extending southward to the line of the sidewalk, one at either end. A court, with fountains, occupies the recess between these wings. Behind it rises the main façade, adorned only with lofty arched windows filling the interspaces between plain but well-proportioned pilasters. The entablature above is decorated with five statues, marking the places corresponding to the pilasters below. The whole structure is of brick, covered with a heavy and strong plaster of cement, in the management of which, both as regards durability and plasticity to decoration, the German builders exhibit notable skill. It is the almost universal material of their work, a building of wrought stone being exceedingly rare with them. The University building, we thus notice, is quite as well off as the royal palaces. Indeed, it was originally the palace of one of the royal blood; and its free gift by its owner for the use of the noble institution which, in 1808, the nation founded in the assured conviction that it would prove the certain means of national regeneration, is a new reminder to us, as we pass across the wide street to enter its precincts, of the all-permeating presence in German life, even in the interior of thought and letters, of the political and civil spirit. The University, we reflect, is a national and royal institution; an integral and elementary constituent, by law, of the governmental organism.

We enter the iron gateway, and become part of the throng of young men that is now crowding the space of the court, so vacant when we came a month before. We do not stop for any very accurate impression of them now; we only notice their multitude, the extreme plainness or even coarseness of their ordinary attire, their rather plebeian look, and their unexpected youthfulness; we had forgotten, you see, that they come up from the gymnasia and other preparatory schools at the age of eighteen, or a little later; nor had we realized how much more youthful-looking the German is at that age than our young Americans.

We make our way across the court, taking slight note of its mosaic pavements of vari-colored bits of porphyry and marble, wrought into rich geometric patterns, only glancing at its turf and flowers, and pass into the low doorway. We find ourselves in a low vaulted hall, supported by four thick and short Doric columns. It is thronged with students and with the new candidates for matriculation. Through the throng we get glimpses of the walls covered all about with the time-honored blackboards plastered over with various written or printed notices, and of the staircase in the rear, leading to the consecrated *Aula* above. We notice the young candidates' hands, full of their *Abiturientenpapieren*, and we feel in our pockets for our Government passports, which have now suddenly acquired for us so important a value. Armed with these, we wait for the signal to ascend. It soon comes, and we are borne along with the column that goes resistlessly up the stairs. We debouch with the rest upon the upper hall, and in our proper turn come at length in front of the tall double doors that let into the *Aula*. Each candidate is admitted separately, exhibiting his papers to the door-keeper, who takes and passes them in to the authorities in waiting. Entering, we cast a glance upward at the high walls and ceilings, finished in plaster, and tinted in a rather commonplace way. Our eyes naturally return, and seek the faces of the academic magnates who are sitting there at the upper end of the long rectangular room, ready to decide our fate. They are a very unobtrusive and, at the first glance, undistinguished-looking group. Ranged along the farther side of a very long table, covered, of course, with green baize, are the Rector and his Deans with their Secretaries. The Rector is at the centre; his ruddy, English-looking face, crowned with abundant gray locks, and fringed with a full white beard, is attractive; soon it becomes impressive, as his attention is fixed on the assemblage before him, and the light of his strong intelligence passes forth from his clear blue eyes. It is Professor August Wilhelm Hofmann, Doctor of Medicine, Doctor of Laws, Doctor of Philosophy; a graduate, therefore, in honors, of all the Faculties of the University, excepting only the theological; he is, moreover, privy-counselor of the Government, is decorated, and, highest of all, is world-famous as standing in the front rank of his favorite science of chemistry.

The anxious crowd of some four hundred or five hundred young men being seated on the wooden settees ranged in stiff parallel lines across the room, order is called, and the solemnity of matriculation opens. It proceeds in a most matter-of-fact and unceremonious fashion. It consists, as appears, in merely calling up each youthful *Herr*, as his pile or *Papieren* comes on the top of the heap lying before the stout iron-gray Chief Secretary, who somehow identifies the applicant, takes his full name, residence, academic antecedents, etc., etc., certifies his papers as correct, and passes him along to the *Rector magnificus*. That kindly magnate receives him with a homely and assuring smile, transcribes his name from the Secretary's certificate, duly Latinizing it, into a long, largely-printed diploma, to which, after properly inserting *latine* the branch of learning of which the new-comer is *studiosus*, he affixes his own Latin signature; then he graciously waves the young man past him to a new *Registrarius* of some sort or other, who searches certain records diligently, and having found the desired verification, passes the candidate on to the Dean of the Faculty in whose jurisdiction the *juvenis ornatissimus* belongs. From him the youth receives the final *accipiatur* in the shape of a printed certificate bearing the Dean's signature, and of a card, stiff and durable, on which is the seal of the University, *rite impressum*, covering and sanctioning certain highly valued words. For these words inform the outer world, and whom it may concern, that the fortunate bearer is a member of the University, privileged from arrest and trial by any court except that of his Alma Mater; privileged also to a half-price ticket at theatrical entertainments—that is, if he chooses to stand up in the dim back-districts behind the parquet and under the low galleries. Taking these desired *testimonia* from the Dean's hand with a respectful bow, the novice returns to his seat This mild ceremonial is now repeated on successive *junge Herren*, with an increasingly soothing effect upon the apprehensions of the remaining assemblage. We Americans look on with a patient contentment, and presently our virtue is rewarded by the unusual but welcome sound of "*Mister* Blank," which the affable Chief Secretary seems to manifest an excusable pride in being able to utter with an intelligible accuracy. Our summoned companion rises with alacrity, and with an answering speed is marshaled through the gentle routine, to be rewarded at its end with the usual token. The present writer goes up in his turn, and on arriving in the presence of the Rectorial Majesty is greeted with the due question, "*In welchem Zweig?*" The expected reply in German not falling from his lips with incalculable rapidity, the benignant Rector swiftly and blandly translates, with good accent, "In whe-ich brahnch?" Upon this additional inducement, the German answer stumbles out, the diploma is duly filled and signed, and presently the Dean of the Philosophical Faculty is reached, who duly but wearily signs the certificate with the name *Zupitza*. It is the regular public professor of English—a great and deservedly famous master of our vernacular; one of the greatest, in fact. We are downright glad to stand so near him and to look into his face; and we wish that he would unbend a bit, and be as gracious as the genial Rector. We are all soon back in our places, and watch the unvarying scene till the last man for the day is called. Then the Rector rises from his seat, and all his colleagues rise after him. He comes to the front of the table; says in a full, resonant voice, with a most agreeable accent, a few words of congratulation and welcome; tells us that we may omit the oath formerly exacted of candidates as the seal of matriculation, and may, instead, testify our allegiance by advancing one by one and giving him the right hand. We all file past him and comply with the requirement; then we pass out of the hall, down the stone stairway, through the low-vaulted lobby below, and out into the street, where the great Frederick, with his bronze arm a-kimbo, and his tasseled cane in hand, seems to look down on us from his horseback perch on his lofty pedestal with an ironical and Mephistophelian smile, as if he were saying, "I *have* you now, *meine Herren!* See that you behave yourselves, or look out for whacks!"

The scene of which we have just been a part will now be repeated from day to day with other candidates, until the great total of eighteen hundred matriculates for this single semester is made up. There are sixty-six Americans among them—more, by nearly a fourth, than from any other country outside of the Empire. Russia comes next, with fifty-four; then Austria, with thirty-nine; then Switzerland, with thirty. Great Britain, from all her three kingdoms, musters only eleven.

Together with our diplomas, at whose top line of mystical initials, solid, square, jet black, running—

Q. S. F. F. Q. S.,

we gaze fixedly and with a justifiable pride—for are they not an enigmatical "settler" for the uninitiated, and are *we* not in the secret?—together with our diplomas, we have each received a couple of *Hefte*, got up in that Spartan disregard of luxury which characterizes all the University publications. Of these homely pamphlets in quarto, one is the brief collection of University regulations; the other is the *Anmeldungsbuch.* We make our way leisurely homeward, and, arrived at our quarters, fall diligently to the business of finding out from the *Hefte* what our duties, as approved *Herren*, *Studirende*, *studiosi philos.*, are now to be. The *Anmeldungsbuch*, we discover, is the intended register of our engagements with the various teachers—professors or *privat-docenten*—whose exercises we expect to frequent. It is our business, with the help of the *Verzeichniss der Vorlesungen*, to decide what lecturers we will hear, and in what subjects, and then to seek out the chosen dignitaries at their homes, make our *Anmeldung*, or announcement of presence, to them, receive their signatures in the appropriated blank spaces of the *Anmeldungsbuch*, and have our seats assigned us. We soon select our subjects and lecturers, and in a contented mind give ourselves up for the remainder of the evening to the sober pleasures of *Fritz der Grosse's* city.

Day after day we now begin to frequent the lobby of the University, and to search among the scraps of manuscript that are crowded on its blackboards, for the announcements by our lecturers of the places where they will lecture, of the day when they will begin, and of the time when they will receive the *Anmeldungen* of their intending *Zuhörer.* The desired notices make their appearance at irregular intervals, but by the end of a fortnight we have found all we seek. We have learned from the Regulations that our seats will be assigned in the order of application, so that he who would have any choice must report himself early; moreover, he must go with the signature of the University *Quaestor* (treasurer) to each course listed in his *Anmeldungsbuch*, certifying that the fee has been paid. To fulfill this last requirement we must get from the head janitor a *Belegenskarte*, or pay-ticket, assigning the day and hour when the *Quaestor* will receive us. Such is the precaution necessary, in so great a throng of students, in order to prevent intolerable crowding and confusion. In the attempt to obey the latter provision, we experience our first, and also our last, discomfort from the greatness of the numbers. On arriving in the lobby, at the time assigned by the janitor for the first distribution, we find a heaving, swaying mob, of which we soon become a helpless part. With a roar of moving feet, not unaccompanied with hoarse notes of alternate cheering and complaint, the hustling crowd surges slowly forward to the western side of the low room, the four thick columns of which render the advance more compressed and difficult. Hats and caps are pushed off in the eager confusion, arms sway above the heads, each man wrestles and pushes to get to the front. Vainly the gray-bearded janitor waves his excited and deprecating arms. With the help of a half-dozen assistants, he passes out the cards from behind the guard of a hinged shelf that drops across the open door of his room. These are snatched by hands so intermixed that he cannot trace the bodies to which they severally belong. The charge upon his doorway grows heavier and fiercer. At length his barricade gives way, and the head of the assaulting column falls prone and broken in pieces upon the stone floor of his stronghold. The scattered members writhe awhile, till at length, in some inscrutable fashion, the snarl is disentangled, and order begins to reappear. With various repetitions of the charge and its breakdown, the sore labor of distribution is at last accomplished, and each lame and weary *studiosus* gets home as best he can, with the precious plunder of the hour.

The hard-won *Belegenskarte* having on the day appointed unfailingly performed its *Open Sesame* upon the *Quaestor's* door, the present writer sets out for the residences of his lecturers in due succession. Arrived at the first, which is in a right stately house in a wide street of the new and *ton*-ish suburb known as the Potsdam quarter, he is ushered up a long staircase to a suite of apartments on the third floor (the *fourth* from the street level), which is reckoned "about the correct thing" for a professor in comfortable circumstances. Entering the room nearest in front, he sees, standing at a high desk, industriously consulting books, and writing, a slender, tall and venerable figure. The face is spare, the complexion parchment-like, the forehead high and full, the dome of the skull high-arched, the crown completely bald; scattered gray locks curl about the sides and back of the head. "*Herr Professor, ich habe die Ehre Sie zu besuchen, um mich anzumelden.*" Then Professor Zeller turns from his work graciously toward his visitor, greets him a good-morning, reads the name upon his card, asks him to a seat, exchanges with him a few sentences about acquaintances in the United States, and ends by taking the *Anmeldungsbuch* and signing it opposite the title of his own course of lectures. A kind inquiry as to where the *Zuhörer* would like to sit, and the assigning of a seat on the front row of benches, as nearly as possible in front of the lecturer, closes the interview. The visitor takes his leave, thinking, as he descends to the street, how very simple and unpretending the greatest living master of Greek philosophy can be.

For the next few days scenes quite similar are repeated, save that the lecturers, in every instance but one, are young men. That single exception is the venerable Michelet, now in his eightieth year, but announcing a course of lectures *publice* this semester, after a silence of five years. Great interest is felt to hear him by a small circle of men interested in idealism, and in Hegel as the greatest modern expounder of it; for Michelet was a favorite pupil of Hegel's; so that it seems almost like coming into Hegel's personal presence, to see and listen to the man who enjoyed his instruction and his confidential acquaintance so long. We find him in the same quarter of the city as Professor Zeller, as, indeed, we have found all the lecturers that we happen to have chosen to hear—only a long distance farther to the southwest. In a sunny room we see a short figure, much bowed, but with a ruddy and smiling face, sitting by the window. On the wall at his right, we recognize instantly the original marble medallion from which the well-known and noble profile of Hegel is made, that renders the frontispiece of Rosenkranz's life of the great philosopher forever memorable. About the room are various other mementoes of its owner's famous teacher. The venerable disciple listens, pleased, to the announcement of our errand; and, as he learns of the especial interest of his visitors in Hegel, he rises with great animation and vivacity to emphasize his welcome. The short ceremony of signing the *Anmeldungsbuch* and appointing seats is soon over, and we go on our way, wondering at the persistence of faculties so undimmed amid the encroachments of age. We are soon to find, on entering Michelet's lecture-room, still more astonishing evidences of the unquenched fire of his intelligence.

The preliminary duties now all performed, we find ourselves on the appointed day actually entering the *Auditorium* in which we are to hear, or attempt to hear, our first lecture in a German university; —the distant dream of our youth has come true. It is Zeller we are to hear first, and it is the *Garten-Auditorium* we are entering; for that is the only one large enough to hold the considerable body of students who feel that a residence at Berlin would be seriously incomplete that did not include the hearing of the illustrious author of the *Philosophie der Griechen*. This *Garten-Auditorium* stands in the grove of chestnuts that fills the city square behind the University buildings. It is a cheap and slight structure, reminding one not a little of the wooden sheds extemporized, with some trashy show of outside architecture, for our American industrial expositions and mechanics' fairs. The interior is bare and bald. Two narrow doors admit to contracted vestibules, between which is a small room for the use of the lecturers. From these, two narrow doors admit to the auditorium proper. Between the entrances is a rough platform at the front of which is a sort of pulpit, paneled in plain carpenter work. At the rear is a small blackboard. An arm-chair of the plainest and most commonplace make in wood, is placed behind the paneled desk. Such is the ensemble, *ganz praktisch und gering*, of that tribune of letters, the word-renowned *Katheder* in the greatest university of Europe.

As we enter the contracted doorway, though we have arrived early, we see a great number of the hearers already seated. They have taken their assigned and numbered places on the stiff, straight-backed wooden benches which cover the floor-space of the large room in parallel transverse rows, extremely close together; so close, that it is difficult to squeeze past the sitters, to get to one's place in the middle of a row. In fact, as the seats get filled up, this method of transit becomes entirely impracticable; and one of the sights of the occasion is noticing how the deft *habitués* of the place manage this difficult matter. As the line of late comers throngs in, each aims for a point on the front row, most nearly opposite the place in the rear which he wishes to reach. With a high-stepping stride that nothing but long practice can render successful at the first effort, he mounts to the top of the front partition, and deliberately walks in mid-air between the heads of the earlier occupants, stepping from one to another of the narrow ledges placed at the backs of the rows to support the note-books.. One learns from this manœuvre an unexpected use of the close arrangement of the rows; it materially aids in preventing a fall, in the course of this elevated march. This method of travel to the desired goal, over these lofty stepping-blocks, has the merit of brevity and directness, indeed; but we soon notice that it has the drawback of abundantly miring the note-book ledges. But the German student adapts himself handily to this source of discomfort, the sleeve of his rough coat, or even the palm of his hand, brushing away the encumbering soil and making room for his book. He usually has to make at each lecture two applications of this primitive method of broom-work; for the majority of the auditors at the preceding exercise have been obliged to leave their places by a similar march over the book-ledges; so that he inaugurates his seat-taking by a comprehensive cleaning-up, which, after the subsequent arrivals, he repeats on a reduced scale.

The hour at which we have come is eleven in the forenoon. We are at first surprised at the apparent want of punctuality, particularly in the case of the lecturing professor; for full twenty minutes past the hour elapses before all the seats are occupied and the lecturer ascends the *Katheder*. We learn presently that this is the regular thing, and that the professor will make his appearance at the exact close of the twenty minutes, with the certainty and the promptitude of fate. We learn also that this twenty minutes' *Frist*, in the case of this particular morning hour of eleven at least, has its homely uses other than getting the auditors duly seated and the ledges in front of them endurably brushed. It is the hour of the German's usual *Frühstück*—his *second* breakfast, as he has learned to call it in deference to the customs and possible misapprehension of his English-speaking visitors—and from most of the side-pockets now comes forth the parcel containing his Spartan fair. Unabashed, with the unconscious mutual confidence of brothers round the household table, all munch their piece of bread and slice of cold meat or roll of sausage, taking the operation as entirely matter-of-course. The stress of duty to learning compels them to forego the mug of beer which would be the grateful accompaniment of the frugal meal in more favorable circumstances; but each has learned from his earliest boyhood that *Pflicht and Fleiss*, duty and diligence, are the student's lot and virtue; so they bear their thirst, and all eat away in uncomplaining contentment, keeping up much friendly chatter in the process.

Meanwhile the lecture-room has gradually been filled to its entire capacity of some seven hundred young men. They are clad in rough and coarse ill-fitting garments, for the most part; they are homely and uncouth in carriage; a good half of them wear *Brillen*, to correct their myopic vision; but they have an unmistakable intelligence, and a great considerateness of each other, and will presently prove, at their note-taking, how thorough and extensive their training in letters is despite all outward signs to the contrary. As the twenty minutes' *Frist* approaches its end, silence falls for an instant on the assembly; the door opens, and the benign figure, tall and impressive, of Professor Zeller appears. He steps swiftly to the *Katheder;* a slight buzz of applause greets him at he takes his stand behind the rudely paneled *Kanzel.* He begins without ado, speaking in an easy and fluent manner, without notes, unless such may possibly be recorded on a paper that he crumples in his left hand during the whole of his lecture. His accent is guttural and perceptibly Suabian, but distinct, commanding, and agreeable. The American new-comers are delighted to find that they understand his sentences without difficulty, and at once fall-to upon their note-taking, at the furious pace which all their neighbors keep up. The lecturer sweeps straight on, borne by the strong current of his thoughts; the hearers follow with might and main, writing as if for dear life. The swifter and more skilled note-takers even run ahead of his pauses, and often hasten them by a simultaneous scraping of feet on the floor which sounds like a muffled avalanche. To this the slow writers respond by a collective hiss, like a suppressed whirlwind. From the beginning to the end of the lecture these sounds alternate, from time to time, till the stranger wonders how the lecturer keeps his course of thought undisturbed. But the professor's gracious bearing remains unmoved, and the serene flow of his sentences continues unbroken. It is evidently all a matter of course, and a traditional habit of the place. For forty minutes our ears gather in, amid it all, the lecturer's comprehensive views concerning the independent originality of Greek philosophy, and his argument against the theory of its derivation from the Orient. At its close, he steps quickly down from his place and passes out at the door. No student rises until he is gone. Then comes a simultaneous charge; the sitters at the ends of the rows crowd along the narrow aisles; the others mount upon the ledges, and stalk over them to the front of the room. There is a short, sharp struggle towards the wall, against which hang the hats and overcoats; there is a brief whirling of tangled arms in the air, as the owners wrestle into their garments; then the throng rolls through the doorways, throwing a long and straggling line into the open air.

Quite contrasted, in many ways, we afterwards find the scene at our other lecture-rooms, where the numbers are comparatively few. Space forbids dwelling with any detail on most of these; let it be enough merely to make remembrance of the various little *Auditorien*, low-ceiled, dim-lighted, close-benched, bare-plastered, and cobweb-hung, in which we listened to Gizycki or Lasson or Ebbinghaus. Through the lapse of years the pallid face of the first of these gifted men comes back upon the memory as on the days when it fronted his slender but attentive audience, leaning diligently forward to catch the half-heard words that he reads, patiently and with difficulty, in a low and feeble voice, from his closely-followed manuscript; and with the image of the face, returns also, and always, the sense of reverence for that courageous love of letters which has carried its owner, a cripple from the cradle, to a victorious career as a university teacher. As clearly, too, returns upon the memory the face and voice of Lasson, as he sits with such unpretending informality in the chair behind the *Kanzel*, his arms leaned forward upon the desk, and speaks in that low and meditative tone, talking rather with himself than to his auditors. And the words of Ebbinghaus still linger in the ear, with their delightful accent and melodious *timbre*, their sharp-cut yet flowing emphasis, their lucid and exquisite style; making him, for all in all, the ideal university lecturer, so far as form is concerned; again he seems standing there, of presence young, lithe and vigorous, his amiable yet forceful face marked crosswise with the two broadsword scars that tell of sturdy battle for his *Corps*, in the youthful days when he belonged to the *Burschenschaft;* again his swift extemporaneous utterance sounds along, with its sentences faultless for mould and for clearness, with its exposition so thorough and trustworthy, its criticism so searching and pertinent. From the small, dingy rooms where we heard him and his compeers the recollection turns again to the large *Garten-Auditorium;* but in the evening now, and by gas-light. Again, in imagination, we stand with the suffocating crowd that has thronged into the place to listen to Du Bois-Reymond, the greatest of living physiologists, who, like so many of his fellow-craftsmen, cannot let philosophy alone, but must once a week harangue the students of the philosophical Faculty—though he belongs to the medical—on the agnostic implications which he finds in his science. The signs of the *Zeitgeist* are strong in the scene; not even standing-room is left; the eager crowd overflow the building, and hang upon each other's shoulders about the doorways, with necks craned forward in the hope of catching the words inside. Wedged in among those standing close by the *Katheder*, we listen to the ironical voice as it pours its eloquent sentences from the snarling mouth, the hands leaned hard upon the desk, the shoulders high-lifted and stooping, the head thrown down and forward, the eyes gleaming with a fierce light. Very different is the appearance of the same place on certain other evenings, when we gather with some four hundred companions to listen to Friedrich Paulsen's *Einleitung in die Philosophie.* In the *Katheder* sits a young man, whose face might easily be fancied as that of Luther mixed with that of Renan. His manner is utterly unassuming, half bashful and shy. His tones are low, but distinct. His style begins simple and clear; presently, as he rises to the interest of his subject, his sentences become epigrammatic and aphoristic. He speaks with a strangely fascinating fervor of sentiment, though without demonstrative manner; he is intense, not expansive. Him, too, his audience accompany with that grotesque alternation of floor-scraping and hissing which we hear daily at the lectures of Zeller. One evening it annoys him beyond endurance; he stops, speaks abruptly and hotly to the students; then takes his hat and leaves the room. As the throng follows, at the appropriately respectful distance, we wonder if he will ever come back; we inquire the opinions of our next neighbors; these smile, and think it best to come next time and see. Arrived at the appointed hour, we wait with the rest the lapse of the preliminary twenty minutes. At its close, promptly, the lecturer appears. He is received with respectful silence. His course goes on thenceforward without any further episodes, and closes as if nothing had happened.

But it is in the lecture-room of Michelet that our little company find their greatest delight. His two dozen or thirty hearers are full of enthusiasm for him and their subject. Twice a week the little old man comes cheerily into the dingy old auditorium where, before him, Fichte and Hegel and Solger lectured in the days that are now historic. We are all there, eagerly awaiting his arrival. Promptly on the minute, like the youngest and sturdiest of the new generation, he opens the door. As he enters, every man rises; we stand, facing him, as he moves to his seat. A favorite young pupil attends him to his chair, and removes for him his overcoat, takes it, and his hat and cane, and places them in the proper corner. With smiling face and beaming blue eye, the bowed figure looks out upon his hearers, who now seat themselves attentively before him. He draws his completely-written lecture from the breast-pocket of his coat, and with a swift and hearty "*Meine Herren!*" begins to read. We know that he has in great part lost his eyesight, and we wonder how it is that he travels so surely along the manuscript. Whether he has it all by heart, we know not; but, some how or other, either for that reason or by power of new inspiration that enables him to extemporize from his great stores of knowledge, he soon, to all appearance, ceases to consult the paper, and goes on in exposition and criticism, clear, forcible, eloquent, brilliant, leaning over the desk and talking straight *at* us. Thought, with him, is no cold contemplation of abstract and dead relations, merely logical; it is a vivid life, full of the organizing power of real existence, and inwrought into the very being of practical affairs. He addresses his hearers as if his message were of the utmost human concern; he feels it to be so, and imbues the auditors with the like serious conviction. Yet there is no sombreness in any of it; for him and his thinking, human life, as Matthew Arnold says, "moves to joy and to beauty." His countenance is irradiated with a renewed youth; hand and arm move in unison with the glowing thought; his hearers lean forward in the fervid interest which he stirs in them; nobody takes any notes; the impression is too vivid to permit that, or, indeed, to leave it necessary. We are all sure that we can reproduce the outline of the doctrine when we get to the quiet of our private rooms. And so we indeed find the case to be; we have been on each day of lecture in the hands of the *philosophic* orator, who not only has the magician's power to rouse our convicted hearts, but the instructor's clearness also, to convey by thorough and comprehensive intelligible connection the permanant posession of systems in their interdependent historical or logical development. His course is on "The Career and Character of German Philosophy from and after Kant," and he illuminates his subject with that all-embracing insight which surely must be accredited to the school of Hegel, and in like degree to no other. He has been known, to be sure, in his earlier teaching, as an adherent of the radical "Left Wing" of that school, perhaps over-ardent; but years have sobered his thinking; they have taught him the larger meaning of his great master's own view, and he plants himself now on the reconciling and truly explanatory "Centre," expounding the "Absolute Idea" as a Reason eternally personal, and the ground and source of the personality in man, instead of a mere bond of Logical Energy, coming first to consciousness in human nature. This great thought, first adequately stated to the modern mind by Hegel, he develops through the history of the revolutionary epoch which forms the subject of his course. Striking is the contrast between the teaching in his lecture-room, and that in the others devoted to philosophy; for, distinguished as the latter everywhere has been by learning and acumen and varied power, it has still all suffered deeply from that sense of confusion, of paralyzed uncertainty, in the presence of the most absorbing problems of life, which characterizes the present generation of German thinkers. These have not attained the point of view of the mighty leaders who closed the last century and introduced the present; and, for lack of it, they grope about among the crowding thoughts presented or suggested by the recent developments in the natural sciences, with the distrustful anxiety of wayfarers who have lost their path in the tangled forest; or, in some cases, swagger with the over-confidence of those who are sure they can prove that there is no way out of the forest at all.

It is in the occupations and experiences above described that we pass the portions of the day which call us to the University buildings. It is in the libraries or the reading-rooms or our own appartments that we spend the remaining hours, aside from the few which we allot to the streets, and parks, the museums of art, the theatres and other amusements. We have access by right of our *Studentenstand* to both the great book-collections connected with the University—the vast Royal Library and the *Universitäts-Bibliothek;* for a trifling fee, we can make use of the plain but comfortable and abundantly supplied *Academische Lesehalle.* The method of using the libraries is new to us, and interesting. There is no catalogue, either printed or on card, open to users. The applicant, properly provided with a surety paper, signed by himself and by some one of the professors as his voucher, simply presents himself at the delivery window on one side of the rather contracted vestibule of the library building, and purchases for ten pfennigs (two-and-a-half cents) a package of *Bestellzettel*, or order slips. Upon one of these, as occasion arises, he writes the title, edition and author's name of any book soever that he may want, adding the place and date of publication, all with as great exactness as he can. One of the numerous assistants of the librarian takes this, or any number of like slips, and informs the applicant that he may call for the books at a certain hour next day. At the appointed time he goes, and receives either the books or a written explanation of their non-appearance; either some earlier applicant has them, or the library does not contain them; the latter case, however, rarely happens, so great are the resources of the admirable collections. The writer, though occupied with out-of-the way books, usually reckoned rare, never failed to find what he asked for, in the course of a long and busy semester. The same provision, of a day's notice, is required when books are to be used in the reading-room of the library. Here each reader takes a little table assigned him, on which are writing materials; thither the books reserved for him are brought, and there he sits, reads and makes notes at his leisure, amid the profoundest quiet, though the room is thronged with workers. Absolute silence is prescribed, and nobody is ever heard to violate it. At the close of his work, the reader leaves his books upon the table, affixing a note to each that he wishes to use the next day, with mention of any others wanted, and takes his departure in the same still and subdued manner that has marked his whole demeanor in the place. If he wishes books for home use, he obtains them at the proper window, in response to the notice of the day before. He is not restricted as to number, and he may retain any work four weeks; he may also renew it, without return to the library, at the end of that time, if nobody else has called for it; and so on, again and again, under the same condition, until the end of the semester. Then he must return all, and receive a certificate that his accounts are clear, properly attested by the signature of the responsible officer. This certificate he will be careful to forward to the professor who favored him by becoming his voucher, accompanying it with his best thanks.

Besides these engagements in the lecture-room, the libraries, or one's study, which may be called the obligatory occupations of the student, we find that there are various others of a volunteer sort, which the *Herren Studirende* carry out on their own account. They run the gamut " from grave to gay, from lively to severe," but none of them fails to have an important element of *Unterhaltung und Kneipen*—amusement and conviviality. The usual field of these volunteer relations is some one or other of the multitudinous *Vereinigungen* (associations) with which every German university overflows, Berlin naturally the most of all. They are of all sorts, with all leading purposes, from the *wissenschaftliche* (among which it is amusing to find the Chess-Clubs set down) to those which have to be described as "*Verbindungen nicht mit wissenschaftlicher Tendenz.*" Among them, of course, are the world-famed *Burschenschaften*, in their various *Corps*, such as the "Arminia," the "Franconia" the "Germania," the "Hevellia," the "Alemannia," the "Guestphalia," the "Teutonia," or the "Vandalia." Each of these has its colors and its *quasi* uniform, and it is among their members that the broadsword dueling goes on, as well as various other habits of disorder.

It is one of our agreeable surprises, however, to find that, numerous as these *Corps* are, the membership is small; in comparison with the whole body of students, astonishingly small. Among the six thousand men at Berlin, for instance, scarce two hundred could be counted in the *Corps*. It is the industry of these few in their vocation of idleness and dissipation, that makes the disproportionate impression of student worthlessness upon the outside world. Conspicuous by their bright baldrics and absurd little caps, which, with gay tricolored bands and destitute of vizors, stick like tiny sieves on the very peaks of the wearers' heads, these idlers stroll about the streets or drive through them in open carriages, forming the only noticeable class unquestionably to be identified as belonging to the university. But they really make but a very small and insignificant part of its life. They are responsible for nearly all of its discredit, and contribute next to nothing towards its honorable performance. To the great mass of students they are as if they were not; and it is not too much to say that, taken as a whole, the German students are the most industrious, steadfast and correct body of literary youth in the world. There are "bad fellows" among them, of course, as there are among every body of students, or of young men engaged in other occupations; but their prevailing character is the opposite of that which the superficial observer, misled by the street and purlieu performances of the obstreperous *Corps*-men, too frequently attributes to them.

Besides the *Corps*, however, there are the other social organizations, whose assemblies, beginning with intellectual interchanges, in the way of addresses, essays and discussions, always end with some convivial cheer. Here the genial beer-mug wakens to song and story-telling, and the evening, begun at a good early hour, say half-past six or seven o'clock, runs far on to midnight or to one in the morning. But this is only once or so a week; and let it always be remembered that drinking beer, with the young German in his *Vaterland*, does not mean drunkenness. This, in the associations outside the *Corps* at least, and even in many of these, would be regarded as a breach of decency, not to be tolerated among men of good breeding. The beer-mug is a sort of national *Palladium*, and belongs to the home and the hearth-stone. 'Tis as innocent as, with us, the tea-cup or the coffee-pot; and is as much a matter of course and of daily household use. To the well-regulated German mind, the man who abstains from beer is like the vegetarian "crank" to the average sensible American; he is off color, "queer," and "fit for treason, stratagems and spoils." It is of the established German code to take one's beer in moderation; and so, indeed, it is taken, in the settled home and by the fireside. But the moderation has an expansible standard, ascending with the capacity; and it is astonishing what a capacity of absorption the German student occasionally develops, without any apparent loss of sobriety or wits. And let it always be said, as the ordinary facts surely deserve, that the *Kneipe* of the German students' *Verbindungen* is not at all a scène of dissoluteness and moral *abandon*, but, on the contrary, a season of moderated and controlled hilarity, where bestiality or indecency would cost the perpetrator his social standing.

In the crowding occupations, serious or light, described but too imperfectly in the foregoing pages, our semester soon sped away, and the writer took his leave of the glorious intellectual centre, glad to have had even a single season's share in its great life, though regretful to know that he could not share in it longer. In parting from these memories of Berlin University, it seems pertinent to spur our own ambition here in America, as also here in our home by the Pacific, by pointing out a single and most significant difference between an institution of that title in Germany, and the same with us. All its students are "mature," *i. e.*, graduates of a *Gymnasium* or, in certain cases, of a *Realschule* of the first class. This means that when they begin their university career, the enormous majority of them have a general and liberal culture about equivalent to that of American students who have won their B. A. degree at good institutions in which Greek, as well as the other liberal subjects, is a required condition. What a literary force, what a scientific force, what an intelligent moral force, must a body of thirty thousand young men at this level of preparation be! What a breadth of conceptions the lecturer may take for granted when he addresses them! And from them alone, by German imperial law, can the ranks of the three leading professions be recruited. No German can enter holy orders, or practice medicine or law, except a university course of at least three years, following upon a liberal discipline very nearly equivalent to that of our best colleges, have preceded his rigorous examination for his profession by a Commission of the State. Let us ponder upon the immense import of such a system of qualifications. Let us learn from it a lesson, not of discouragement, but of resolute aspiration—of diligent national self-criticism, to end in courageous and discriminating national action.—*The Berkeleyan.*

HENRY F. HARRINGTON.

Henry F. Harrington, for many years superintendent of schools at New Bedford, Mass., died on Monday, September 19th.

Among New England superintendents Mr. Harrington stood in the very first rank as a progressive thinker and vigorous writer. In him a very interesting mind was joined with rare gifts of expression, so that he took many men into his confidence, and found them eagerly interested in the development of his opinions. Like all superintendents, Mr. Harrington issued annual reports addressed to the people of his city. But the questions that had to be dealt with in New Bedford were precisely the questions that perplexed other communities, and many pages of his reports took rank at once as educational literature, interesting everywhere and permanently. The New Bedford reports were really a pedagogic *Annual*, whose arrival a large constituency awaited with the assurance of entertainment and instruction. All the marked individuality of these documents was the individuality of Mr. Harrington. We always knew that he would see the topics of current school interest in a new and fresh aspect, and would stir us up in a wholesome way with zealous sympathy, or with zealous antagonism. Teachers there are, now in middle life, whose professional career thus far has been accompanied by him, through these utterances, as by an inspiring friend.

As a writer, Mr. Harrington possessed, in the best sense of the phrase, a wonderful *copia verborum.* The English thesaurus was all at his disposal. His was not a cold temperament. No conventional phrasing and no meagre vocabulary would suffice his needs of expression. If it was often indignation that made the verse, it was because much of his work consisted in clearing away the old educational lumber that he saw hindering possible reforms. He was in his element in denouncing abuses of every kind. Though he lived to be an old man, he never ceased to attack with youthful zest all the ancient torpidities and timid conservations that infest educational theory and practice. Any slurs upon the public schools emanating from hypercritical scholarship and pedantry, or from aristocratic assumption to prescribe what the masses should have of education, roused his protesting spirit to vehement utterance. From his experience as a minister in early life he retained the habit of ready public speech, and was wont to address an audience extemporaneously in the same free and flowing style in which he wrote.

Did it comport with this notice, we should like to reveal the beautiful and heroic self-sacrifice of Mr. Harrington's private life, as impressive and touching as his public career was useful and eminent; the abounding humor of his conversation in the circle of his intimates; the love and reverence which his personal friends cherished for him; and his own enjoyment of the society of a group of companions, to reach whom, in their Friday evening relaxations, he would, to the end of his life, as often as his official duties permitted, make a long journey, there to render all about him happy by his emphatic demonstrations of pleasure in meeting his comrades again.

*BOOKS RECEIVED.**

The Making of the American Nation. A book for American boys and girls. By Arthur Gilman, M. A. Chicago: The Interstate Publishing Co. Boston: 30 Franklin St.

Macmillan's Progressive French Course. I.—First Year. Containing easy lessons on the regular accidence. By G. Eugene Fasnacht. New edition. London: Macmillan & Co.

Maria Stuart von Schiller. Edited with introductions and notes by B. Sheldon, D. Lit. (London). B. A. (Victoria), Senior Modern Language Master, Clifton College. London: Macmillan & Co.

Elementary Classics. *The Hecuba of Euripides.* A revised text with notes and an introduction by the Rev. John Bond, M.A., and Arthur Summer Walpole, M.A. London and New York: Macmillan & Co.

Addresses delivered at the Dedication of the Slater Memorial Building, at Norwich, Connecticut, Thursday, November 4, 1886. By Professor John Putnam Gulliver and President Daniel Coit Gilman. Cambridge: John Wilson and Son. University Press. 1887.

State of New York. Department of Public Instruction. Thirty-third annual report of the State Superintendent. 1887. For the school year ending August 21, 1886. Transmitted to the legislature, January 4, 1887. Albany: "The Argus Company," printers. 1887.

Elements of Orthoepy: Consisting of the most essential facts and principles compiled for use as a text-book in the Academy of Science and Art at Ringoes, N. J. By C. W. Larison, M. D., Principal of the Academy of Science and Art at Ringoes, N. J.; formerly Professor of Natural Science in the University at Lewisburg, Pa, Published by the Author at Ringoes, N. J.

*Any of these books may be more fully noticed hereafter.

On Teaching English. With detailed examples and an enquiry into the definition of poetry. By Alexander Bain, LL. D. New York: D. Appleton & Co. 1887.

At a time when teachers of English are striving to establish the fundamental principles of their art and to trace a methodic through the endless variety of possible exercises legitimately within their range, a book by a writer so well known as Prof. Bain, and bearing a title so promising as that which we have quoted, is sure to attract attention and to find eager readers. Many earnest teachers will begin its study, will find certain preliminary loose discussions not without interest, and will go on to find their sympathy with the author's ideas diminishing, until at last they read unwillingly or lay the book aside unfinished, without having found help or guidance in their perplexities. The book is singularly disappointing. It certainly has no message for the teachers of English in the secondary schools of this country. Whatever has been gained by experience would be jeoparded were Prof. Bain's crotchets to be taken into consideration in planning our class work.

One of those crotchets is that the English teacher must isolate the treatment of form or style from the treatment of content or subject matter, and, in fact, must devote his attention solely to the former. Hence it follows that composition writing is rejected as being "a mixed exercise, partly of thought and partly of style." It is assumed that every mixed exercise must, of course, be a bad exercise. It is unavoidable that in writing the pupil should both say something and say it in some manner. Therefore, writing must not be done. If it were possible to write English without saying anything, essay writing would become a proper means of discipline in the hands of the English teacher.

All this, of course, is absurd to the last degree. The English teacher has a perfect right to take cognizance of the pupil's acquired knowledge and to carry his work along parallel with all the other school exercises. His function may be described as being to ascertain how his pupils will express in writing the operations of their minds on subjects with which he is sure that they should be familiar, whether as the result of instruction given in school by himself and others, or from knowledge acquired in any other manner whatever; and to make this expression of thought by the pupil the object of instruction and training, due regard being always had to its quality as a suitable expression of the particular thought in question. So far is it from being right for the English teacher to ignore the presence or absence of a definite content in the pupils' minds which seeks utterance in writing, that it is his prime duty to bring to pass the possession of such a content if he is not aware that it exists already for his purposes.

To any one who knows something of the abundant pedagogic literature of theme-writing as a school exercise, Prof. Bain's summary repudiation of this element of English teaching seems astonishing.

The rest of the book contains an exposition of the exercises in criticism which he recommends as suitable to constitute the staple of a course in English. These exercises are precisely of the sort fitted to destroy all genuine interest in the authors examined. How to deal with the English classics in teaching youth is a delicate question. An example of what not to do is furnished us in this minute, tedious, wooden trifling, in the learned manner, with the language of choice passages of literature. In his critical idiosyncrasies Prof. Bain is often very wayward. His literary judgment is unsound: but even if he were, in this respect, a sure guide, his method is so petty and deadening that his book would exert a bad influence on English teaching in our schools, were it to attain the improbable fortune to have any influence at all.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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TEACHING FRENCH.

ANNA C. BRACKETT.

It would seem hardly worth while for a mechanic who was to learn the construction and mode of action of a new tool to begin by throwing away all his old ones and by trying to forget all his previous knowledge of them. Rather should we suppose his experience and past knowledge might be of great advantage to him in acquiring new. Any new language is like a new tool to the mind. It is an additional means of perceiving and reasoning. The extreme advocates of what is known as the Natural Method, seem to have overlooked this consideration. They ask us to forego, as far as possible, all the advantages of our previous training and accumulated experience, and to learn like little children. In so doing they overlook entirely another consideration which is implied in the phrase used above; "as far as possible." They forget that the adult-mind is so different in its workings from the child-mind as to appear almost of a different type. It is simply impossible, even were it desirable, to make the mind of the fully grown man or woman act as does that of a child. Any thoughtful teacher who is brought in contact with minds of different ages cannot fail to be more and more impressed with this fact. Teachers of graded school classes are not in a position to appreciate it. But let any woman teach for a half an hour a class of children just learning that some words are used for one purpose and some for another, or that a figure derives its value from the place where it stands in a number and not from itself, and the next half hour hear a recitation from a class of fourteen or fifteen, translating French or being led into the unknown ways of Geometry, and she will know from the wrench necessary to her own mind to change its bearings, how different are the two sets and the two ways of thinking. And the difference between the mind of fourteen and that of the mind of thirty is far greater than this.

It is well to have a good accent in French. It is better to have a clear comprehension of the language. It is best to have both. As to the accent, however, it might as well be understood at the outset that no American child will ever speak French so as to deceive a Parisian into the belief that he is a fellow countryman. We all know French men and women who have lived in this country since their early years. Is it ever necessary to hear them speak more than one sentence to know that they are not Americans? The sentences are accurately and even elegantly constructed. The words are correctly pronounced, but there is a little accent nevertheless. We may not be able to locate it or we may be able to say that it is just a little peculiarity in the *r* or the *u*, but we feel rather than reason about it, and we know and do not suspect.

Now we cannot expect to do better than this with the children we teach. It is not well to make the pronunciation the most important thing. It is not well to "tithe mint and anise and cummin and neglect the weightier matters of the Law." And we must never forget, or allow to be forgotten, the truth that although we may learn French in order to use it, and not primarily as a disciplinary study, nevertheless our main duty as teachers of children is the disciplining and developing of the mind. No matter what we do or leave undone, we must not allow the minds to become confused. We must not offend the judgment and common sense of the children. We must not force upon them rules and ways of looking at things which are not only at variance with but in direct opposition to all their previous ways of thinking. If we do this in teaching French we have not alone lost the battle for the French language, but we have prepared for defeat all along the line. And who shall say that in view of the unity of the mental organization, we have not sapped the foundations of all belief and of all character? This may seem an extreme view to take of the matter, but I do most certainly believe that no child can be made to learn and recite anything which offends his own convictions of common sense without being intellectually and morally injured.

All these considerations force us to give in our hearty adherence to the doctrine preached by some of the most experienced teachers in the English schools, that the teaching of French grammar and translation should always be in the hands of competent natives and not left to French men or women.

Nothing is more certain than that the difficulties of the Frenchman with regard to the use of his own language are not our difficulties, and of course our difficulties are not his. If we are to judge by the testimony of French writers themselves, nothing seems to them a more puzzling thing than the agreement of the Past Participle. In any story of French school-life it is always the inability to recite the rules regarding this that brings the luckless pupil to disgrace, and the number of these rules given in French grammars goes to prove the same thing, though it would not do so, unsupported by the unintentional testimony of authors. Now I venture to assert that to an English speaking child, especially if she have some knowledge of Latin, this matter presents very little difficulty if taught by a teacher who sees her way straight through it. Of course if the child is made to learn all the ten or eleven rules found in many French grammars, she will think it difficult, and will be hopelessly confused for the rest of her days. Any past participle, for instance, used with the auxiliary *être* is in the position of an adjective and of course must agree with the Subject of the verb as any properly behaved adjective would in Latin, and would be said to in English parsing. Of course I must write *Je suis frappée* just as I would write *Je suis audacieuse.* So that is nothing new, and perfectly sensible to the child. In fact he would have done it himself if left to himself; at any rate after being shown once that it was an adjective, and whenever he finds a past participle used with *être*, whether used passively or reflectively, he will make no mistake.

Then again how *can* a participle agree with its object if it does not know what its object is to be, as is the case when the object follows it? But when the object has already been expressed, then the participle is clear as to its duty, having been advised beforehand as to what is expected of it, and so becomes either masculine or feminine, according to its knowledge.

Then again, why should we be so many times told that the participle must not agree with its indirect object? What sensible person ever expected it to do so? It was the direct object we were to look out for, and why should we be annoyed by indirect objects with which we have nothing to do? A large proportion of the rules in

French grammars on this subject are rendered necessary only by the fact that the author does not seem to know the difference between a direct and an indirect object, or in fact, of which of two adjacent verbs a pronoun is the object. But if we cannot teach our pupils to consider and decide such points as these, and govern their action accordingly, we had better once for all buy a Rhode Island farm, go to cultivating the ground and give up playing teacher any longer.

The use of the Subjunctive does not seem to present much difficulty to the French mind, while to the English-speaking child it is a subject of great annoyance—naturally, because the Subjunctive is one of the "Lost Beauties of the English language." The use of prepositions however, as one would naturally expect from the fact that prepositions express relativity, is the crowning difficulty, and it is not to be supposed that the pupils will ever master it in any foreign language, any more than foreigners ever master it in ours.

Perhaps enough has been said to warrant the assertion that the native born French man or woman is not the best person to teach French grammar—as it is impossible for them to smooth away difficulties which they cannot understand or to treat things as easy and sensible which to them are great difficulties.

Bad enough as are most French grammars, the worst and most confusing of all to our children are those written for the use of French children. I may be permitted to quote a rule from one of these which to an English mind conveys the momentary sensation of standing on one's head.

"If a noun takes *le* before it, it is masculine, if it takes *la* before it, it is feminine."

But "O Heavens!" exclaims the American, "that is precisely what I want to know. If I know what nouns take *le* and what nouns take *la*, I shall have no need of learning any rule at all. All I want to know about masculine and feminine nouns for, is to know whether to put *le* or *la* before them."

And yet grammars full of such rules are given to American children to study, and then we wonder that they "have been studying French three years and can't translate a simple sentence correctly or express the simplest sentence without error."

How much would Galileo have discovered about the stars if he had been forced to look through the wrong end of his telescope? That is what French teachers with the best intentions in the world, with the most conscientious purposes and with the "purest Parisian accent" are forcing our boys and girls to do. And no wonder the results are deplorable and parents indignant.

When we come to the way in which the unfortunate French verb is treated, we find ourselves in a slough of despond in which are at the present time floundering in absolute despair, most of our brightest pupils.

In the first place the Verb is treated as if it were a something entirely by itself. It does not seem to be a part of any living sentence at all, any more than Louis XIV could be said to be a part of the French nation. By the absurd and unreasonable method of four conjugations, which exist only in the brains of grammarians, the whole subject is put into the domain of those things which have no relation to common sense, and then when the patient pupil has mastered the four conjugations and has tried to believe that things which to him seemed just alike were all different, he is presented with an array of hundreds of irregular verbs, which are supposed to owe no allegiance to any conjugation, but to do exactly what they please. To the Anglo-Saxon mind, this is simply exasperating and finally discouraging. When the pupil has arrived at this stage of the grammar, all other parts of speech vanish from his sight for a long time. He sails out despairingly, "bound on a voyage of awful length" over an unknown sea. All landmarks and all firm earth are gone and there is no compass and no north star. His teacher has not invented the one and not discovered that the other does not move. For weeks and weeks and years he "studies the verbs" and "recites" the endless list of verbs till it is only a wonder that he does not become hopelessly idiotic. He loses all confidence in his own eyes, his own judgment, and falls into a hopeless state of "special wonder," only repeating "Can such things be?" He will not wonder that Wolfe took Quebec however, for no people who speak such a language as he is made to believe French is, could ever have been equal to holding anything else.

This is not exaggerated. I have over and over again had girls come to me who had been three years in school where French was the language spoken and where the main part of the time was sacred to that language, only to find that they knew absolutely nothing which was of any value as to verbs. And when I have expressed my astonishment at finding a hopeless morass where I expected to find firm footing, I have been told: "Why yes, I have studied French always but *we had not got to the verbs*."

As well might they say, "I have eaten the whole biscuit but I have not come to the flour."

Perhaps it will not be going too far to submit that any system of teaching a language which divorces the Verb from the language, is radically wrong and as lifeless as a man after his heart has been extracted.

I know a French woman, a teacher of many years experience, who on being asked by a fellow teacher one evening if she had nothing to do to prepare for her next day's work, replied: "What should I have to do? Do I not know my irregular verbs?"

In fact the Irregular Verbs have too long stood to many people as the essence of the language. More time has been wasted on them than could be reckoned. What we want is a little American common sense applied to the whole subject of the Verb. He must be put back into the sentence, where he belongs. He must be treated like any other part of speech and the nobility of Irregulars must simply have their heads taken off. They will be found to be very much like other verbs when this operation has been performed and they will cease to oppress the hearts of our children. I am not talking theory. The reason why this article has not been written long ago is that a blacksmith at his forge on an icy day has no time to deliver lectures on the method of making and attaching calks to horse shoes. I am simply at the forge all the year and have been teaching the "beginning class in French" for some eleven or twelve years. I have worked on the principle that the main thing was to make the children understand, and not to follow the lead of any or all French grammars. I have sought diligently for a way out of the labyrinth for the children, and I have not stopped in the direction of common sense and clearness because I found no well trodden path laid out. I have blazed my own way, and shrunk from no audacity which led in the direction of clearness. I can show every year now by June a class of children from ten to thirteen years of age, who knew not one word of French in the preceding October, who are ready to translate intelligently into idiomatic English, who are not afraid of the Verb and who have never recognized him as an enemy, who in fact scarcely know that they have studied "The Verbs"; who can give any part of any common verb with scarcely a mistake, or who are capable of correcting their own mistakes when they have made them. They know absolutely nothing of any "conjugation" and know most of their 22 or 24 irregulars. The rest of the hundreds have been relegated to their proper class and consequently are not known as irregulars. I need not add perhaps that these girls have not dreaded their French lesson and that they come up to their first translation lesson in the Fall, with a not overweening vanity, but with a modest assurance which stands them in good stead. These results of so many years' work may perhaps justify me in giving some sketch of what I have dared to venture in the hope of securing them. The experiment is ready for improvements and I shall be very glad of any help in the way of pointing out errors or suggesting farther advance. It is a living and not a dead method, and is every day subject to change for the better. It came very near last year marching *prendre* over to the model verbs and out of the irregulars. The class thought it ought to go, and it was retained only as an act of prudence. It is so common a verb that we thought it perhaps more expedient to let it stay where it would have more exercise. *Mettre* has long ago been marched over, and *Recevoir* has been obliged to fall into line under *Paraître* instead of parading itself as a leader of a host not equal in size to the army of one of the smaller German duchies.

The application of a little common sense will clear away much of the complicated machinery which in French grammar surrounds and fortifies the verb. To begin with, it is entirely foolish for an English speaking child to study the Passive Voice. After he knows the forms of the verb *être*, he *knows* the passive voice, or rather he can construct any form of it whenever he wants it, which facility is much more valuable than the mere memory knowledge of anything; so all the pages devoted to the setting forth of that Voice in his grammar may be checked off as already disposed of.

Then as to the matter of the four forms, "affirmative, negative, interrogative, and negative-interrogative," the pupil should be told that there is only one to learn—the affirmative—and that he can make the rest at his pleasure. It is easy to turn a form upside down after we know it, and to insert the *ne* and the *pas* does not affect the form of the verb at all. These variations are only matters of practice. By this we cut out again many pages of our French grammar. As to the conjugations, any arrangement which makes a conjugation for *Recevoir* and which has only seven verbs, is seen at once to be unphilosophical. The French grammarians with some few honorable exceptions, cling to the four conjugations because we find four in Latin. But the question with us is, "What is the actual French verb?" not "What have grammarians said about it?" All French verbs behave in exactly the same way, i. e., they are all of one conjugation. Therefore the question of conjugation ceases altogether. If all apples were green, we should not speak of green apples. Really there is no more distinction of conjugation in French verbs than in English verbs. Our infinitives have many endings; our past participles also, but we do not talk about conjugations in English. The general behavior of a verb is what assigns it a place, not the termination of one of its modes and tenses, the Infinitive Present, just as the general characteristics of a plant put it into a certain Family, not the mere number of its stamens and pistils. We need a Natural and not an artificial method in the languages as much as in the natural sciences. We may take nine common verbs as models, and when their principal parts are once thoroughly learned, and the ways common to all French verbs of forming the tenses have been once mastered, all the verbs are disposed of at once, with the exception of twenty-four, which must be learned by themselves, as being very peculiar. The models which we have found useful to work with are:

Parler,
Finir,
Sortir,
Vendre,
Paraître,
Tenir,
Ouvrir,
Réduire,
Plaindre.

The irregulars left are only:

Absoudre and dissoudre,
Acquérir and conquérir,
Aller and envoyer,
S'asseoir and Seoir,
Avoir,
Echoir,
Etre,
Faire,
Falloir,
Frire,
Gésir,
Mourir,
Pourvoir and Voir,
Pouvoir,
Prendre,
Prévaloir and Valoir,
Savoir,
Vouloir.

These Irregulars are either very common, as *avoir*, or very seldom met with, so that they offer very little difficulty. Often, too, the irregularities even of these almost vanish when examined. As for instance, *aller* is perfectly regular except in the Indicative Present. It simply chooses to use the Latin instead of the French Infinitive present to make its Ind. Fut. and Cond. Pres., but it follows the rule all the same. To girls who have studied Latin, and all my girls get one year of it before beginning French, this is simply amusing and interesting, and they seldom forget it after having been once reminded of it. If, however, a girl should write the future of *aller*, *allerai* I should be very glad, for it would show me that she had learned the general way of forming the Ind. Fut. That would be a mistake which would please me more than some correct answers.

As to the formation of the tenses: from the first Principal Part, the *Infin. Pres.*, are formed the Indic. Fut. and the Cond. Pres., and these we call the *r* tenses, as from their formation they must necessarily have an *r* in the middle, and hence are easily distinguished and easily made.

From the *Part. Pres.* are formed, first subtracting the *ant*, the Ind. Pres. plural and the Ind. past.

From the *Part. Past.* are made all the compound tenses by using the corresponding tense of the auxiliary verbs.

From the *Ind. Pres. 1st Sing.* we know the singular of that tense. If it ends in *e*, the terminations are e, es, e. If in *s*, they are, of course, s, s, t.

The *Ind. Pres. Perf. Def. 1st Sing.* gives us firstly that tenses, for it will always end in either *i* or *s*. In either case the vowel before the final letter is the governing vowel of that verb and the terminations will be:

Sing.
ai or vowel s
as " " s
a " " t.
Plural.
vowel circumflex mes
" " tes
vowel rent.

In the *er* verbs, the vowel belonging to the verb is changed in 3d Plu. to è.

Secondly, this gives us the *Subj. Past.* by the rule "Double the *s* and add *e*." The terminations are then:

e—ions
es—iez
e—ent.

Having already known how to make the Ind. Pres. plural, for the *Subj. Pres.* use the 3d plural, dropping the last two letters. The terminations are then exactly the same for the two Subjunctive simple tenses.

This disposes of all possible forms of the verb excepting the Imperative which will be exactly the same as the corresponding places of the Ind. Pres., with only one exception in the case of the *er* verbs.

With regard to the names of tenses, my girls use exactly the same names as those with which they are already familiar in Latin, viz.:

Pres.—Pres. Perf.
Past.—Past "
Fut. —Fut. "

So they are not annoyed or stultified with a double set of names for the same thing.

The Ind. Pres. perf. and Past perf. have each two forms, one definite and one indefinite, as *j'aimai*, *j'ai aimé*, and *j'eus aimé*, *j'avais aimé*, but the number of tenses is exactly the same. The two forms cause the girls no trouble, as they know that the Ind. Pres. and the Ind. Past in their own language have three forms:

I speak— I spoke.
I am speaking—I was speaking.
I do speak— I did speak.

And that we do not therefore have three separate tenses. In fact they saw plainly when they learned their Latin verbs, that the names of tenses were based on an actual division of time and were not arbitrary, and one of my first principles of teaching is, "Never shock the idea of what is necessary, reasonable and right in the intellectual comprehension of a child." I should be doing that if I taught that there were four conjugations or eight separate tenses in the Indicative Mood.

As an illustration of a set of names which do not seem to me to accord with common sense I quote from a French grammar now before me, the author of which has been distinguished "Master of Modern Languages" in an English school. For the Indicative: Present, Imperfect, Preterite, Future present, Past indefinite, Pluperfect, Past anterior, Future past. For the Subjunctive they are: Present, Imperfect (Preterite), Past, Pluperfect. These will do for a "terrible example."

This article is already too long. I have presented in some degree the plan which has met with successful results—results which to some others have seemed marvelous. I offer it for criticism, question or suggestion from any teachers of French. I shall be glad to have weak places exposed. To shrink from the fullest examination of its methods and to hesitate to speak of what may possibly be of advantage to others, belongs to the mean jealousy of a trade and not to the broad generosity of a Profession.

THE STUDY OF LATIN.

I. WHY?

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In the discussion that has arisen respecting the value of the ancient languages as factors in a modern system of education, we are often reminded that the Greeks became accomplished linguists by cultivating Greek alone. The litigation, however, is not whether Latin and Greek shall give place to an increased attention to English, but whether they shall be displaced to make room for the modern languages. The Greeks are not to be permitted to cultivate Greek alone. It is French and German versus Latin and Greek, and the defendants have lost ground, partly because it is Latin *and* Greek, instead of Latin *or* Greek; and partly, it seems to me, because the defence has been put on such high æsthetic grounds that few have comprehended it, or rather, we all comprehend that few attain the benefits claimed. One cannot lay down the average defence of the ancient languages without the feeling that he has been largely feeding on air. And yet that there is a benefit from even an elementary study of Latin (for to Latin I shall confine this discussion) no teacher who has carefully observed, can deny. The writer will endeavor to explain this by a theory that will, at least, be understood, and will follow it with suggestions as to how the study of Latin can be pursued to meet best the end in view.

The purposes in studying a language other than one's mother tongue, may be reduced to three; first, linguistic culture, including not only an ability to use the language studied, but the reflex influence it may exert upon the student's command of his own language; second, to get access to the literature of a language; third, philological research. Prof. Morris, in his monograph on the study of Latin, makes a somewhat similar classification, and holds up philology as the chief because, briefly stated, "it is a science." Well, there are a great many sciences, and the most that the most ambitious scholar can hope for, is to become an authority in one, perhaps, but to possess an elementary knowledge *only* in *only a part* of the rest. What that part should be, so far as popular education is concerned, is marked out by well defined conditions. To entitle a science to a place in popular education, its principles and products should be so closely adherent to the every day life of the masses, that a working knowledge of it has become a practical necessity to all. This is true of physics, chemistry, history, mathematics, language, but how can it be affirmed of philology? It belongs to the list of fascinating subjects of investigation. Excepting its contributions to the more abstract questions of history, its end is mainly in itself. However interesting the fact may be, I do not believe that we use words any more efficiently for knowing that their roots are in every Indo-European language. The views of Prof. Morris, would, it seems to me, logically lead to the banishment of Latin from the popular school; for why should millions of pupils toil over a study whose principal favors are vouchsafed only to the few who chose a certain line of curious research? Or if philology be regarded as a legitimate science for popular education, then for Latin and Greek as now studied, the rudiments (enough to make dictionaries intelligible to us) of at least all the Indo-European languages, ought to be substituted. The writer yields to no one in interest respecting the revelations of philology, but in the Latin instruction of the public school or college, it should be incidental only.

Those who hold that access to its literature, is the chief object in studying a language, seem to me to have fallen into the vulgar error of overvaluing reading as a factor in education, or mental development. It is thinking, not reading, that imparts the most vigorous development to the mental faculties, and what we need most to cultivate. It is our bane that we have to read so much. The pioneers in every department of learning, are usually men of strong mental fiber; for, being able to read all their technical literature in one week per year, they have fifty-one for thinking, while their followers have to read with all their might for fifty-one weeks, and can give but one to thinking for themselves. I am not insensible to the value of a national literature; it has many beneficent uses; but as an easy way to get a glimpse of ideas, it is apt to engender intellectual laziness. Says Cicero: "*Ceteros pudeat si qui se ita litteris abdiderunt, ut nihil possint ex eis neque ad communem adferre fructum, neque in aspectum lucemque proferre.*" We hear a good deal about models, and subtle influences, but is it not a suggestive fact that the great master pieces in literature are generally the product of an age when there are the fewest models? For one I feel confident, and I have studied this point with care, that the chief benefit from the study of Latin does *not* come from getting access to its literature for what it contains, or for any subtle influence it imparts; and, if it were, that not one per-cent of students attain it. If studying Latin, French, Greek, or German were chiefly a question of adding more reading matter to the supply our own language affords, I would be in favor, so far as popular education is concerned, of putting the whole business into the hands of some Omar.

At this point it may be well for me to state that I am a firm believer in the value of, at least, (and, perhaps, at most) one of the classic languages, as a factor in popular education. To explain why, I must first ask attention to those underlying laws upon which all educational theories should rest; the laws of mental development. The double organization of the brain, and the localization of centers of activity for the various functions pertaining to life and intelligence, are too well known and too well established to need explanation or discussion in this paper. Instead I will refer the reader who may wish information on these points, to such works as Bastian's *The Brain as an Organ of the Mind*, Dr. Carpenter's *Mental Physiology*, and Ferrier's *Functions of the Brain*. It needs only to be said here that the brain is a double organ, the hemispheres, or halves, having corresponding centers of nerve action. So far as physical movements are concerned, those of the right-side are effected from nerve-centers in the left hemisphere, and the reverse; while intellectual activities may be stimulated by the nerve-centers of one hemisphere only, or by those of both, acting in concert. We may be obliged to use both brains in walking, but not in thinking, and, as will be seen, we do not. The development of these centers and the performance of their functions, within certain limits, have a reciprocally beneficial influence; that is, thinking for example, develops the proper nerve-centers, and the development of the nerve-centers gives greater facility of thought. I have said that this is true within certain limits, and these are, on one side, the breaking-down point of the nerve-centers by too severe, or too long continued, action; and on the other, when the action is automatic, it causes no growth in the nerve-center. The latter point I wish especially to emphasize. Winking and breathing call out no development of the brain, neither do actions of animals, which are always automatic. The same is true of those actions of human beings that originally required voluntary effort, but by repetition have become automatic. When the young lady has become tired of efforts, or satisfied with her attainments on the piano, she will drum out the old chords and tunes for years without perceptible improvement. So, too, as regards thinking and speaking. We all do about the same amount of these as regards quantity, but in quality there is a wide difference. The "Good morning, Mr. B.; a pleasant day we're having," (I have been thus saluted when it was raining) and a large part of the daily thoughts and remarks of men about business, politics, and religion are merely automatic, and excite no mental growth. This fact has received less attention from educators than it merits. There are some things, as for example the processes of arithmetic, the use of language, the practice of moral acts, and systematic habits, whose highest efficiency consists in their becoming automatic, but the tendency of all our acts both physical and mental to become automatic often interferes with mental growth.

Of the brains of animals, especially of the lower species, the cerebral hemispheres are exactly alike; and the same may be roughly said of the brains of savages. But in higher developed races of men, they are strikingly dissimilar, the left one being usually larger and better developed. The explanation of this is not far to seek. The activities of animals are such as affect both sides of the brain equally. It isn't as if they could do all their running with their right feet, or seeing with their right eyes. And this is in the main true of the physical movements and sensations of man. But as we ascend in the scale of civilization the functions that can be stimulated from one side of the brain, increase and to a great extent are so stimulated. The reason for this has an important bearing on the question in hand. New nerve impulses are at first stimulated with difficulty and traverse their paths feebly as if they met with considerable resistance. But every effort decreases this resistance and hence in every repetition of the act, the nerve impulse will start from the same center and traverse the same nerves as the line of least resistance. Not only this, but the nerve impulses that stimulate allied acts will, for the same reason, as far as possible, start from the centers already awakened and traverse the routes already opened. Hence through these channels all the work of this particular function will continue to be performed, while the corresponding parts of the other hemisphere remain inactive. To call these into activity will require some extraordinary effort, that, as it were, overburdens the lines already opened ; and correlated functions will have to be performed by such different methods, as will make it as easy for them to open new lines of nerve impulse, as to adopt the old. As an evidence of this, mark the broadening influence of a varied course of study (provided it *is* study) as contrasted with the narrowing effect of a too specialized course.

The general principles enunciated above receive a striking confirmation in the results of investigations respecting the faculty of speech. The brain-centers of language, as is pretty well established, are situated in the posterior parts of the third frontal convolution, and a careful study of the effects of injuries to these parts, has revealed some instructive and suggestive facts. I cannot do better than to quote from a book already referred to:

> "In 1836 Dr. Marc Dax called attention to the great frequency of loss of speech in association with right rather than with left-sided paralysis. In support of his view that loss of speech depended especially upon lesions of the left half of the brain, Dr. Dax brought forward 140 observations.
>
> "But in 1861, Broca went still further. Whilst affirming, with Dr. Dax, that the left was the one principally concerned with articulate speech, he precisely defined the seat of lesion in that condition which we now call aphasia, as 'the posterior part of the third frontal convolution of the left hemisphere.'
>
> "This view, originally based upon a very small number of cases, was received at first with great surprise and scepticism. It was thought by many to be most improbable that such a faculty as speech should depend upon the integrity of one small portion of only one of the two cerebral hemispheres. Yet by reason of the observations which have accumulated during the last eighteen years, it is now admitted by most of those who are best entitled to judge, that Broca's localization is in a certain sense correct. Many cases are on record in which a lesion of the posterior part of the third frontal gyrus of the right hemisphere has existed without producing any loss of speech. So that we have both positive and negative evidence in favor of Broca's association of the power of articulate speech with the integrity

of the third left frontal convolution. It is, however, also true that in a certain small proportion of cases, a similar condition of speechlessness has been induced where a lesion has been found in the corresponding parts of the right hemisphere. In some of these exceptional cases the persons have been left-handed, though in others even this reason for the change of sides has been absent. But it is of importance to note that even in these very exceptional cases, though the side affected has been different, speech has equally been lost by a *unilateral* damage of the same definite and extremely limited region of the hemisphere."—*The Brain as an Organ of Mind*, by H. C. Bastian, pp. 675–7.

What is stated here of articulate speech, is equally true of the language faculty in all its phases, though more difficult to observe, and, as has already been said, is exceedingly suggestive. It may be summarized thus. ' In general the language center of the *left hemisphere only* has any development; and this, perhaps, partial; in a few persons, that of the *right hemisphere only.* Dr. H. Newell Martin says: "A great deal may be said for the view that a good deal of brain in everyone's skull is never used." It would not be strange, however, if occasionally cases were found where both centers have a natural development, and this would account for the wonderful linguistic powers sometimes in persons of limited education.

The real question, then, seems to me to be, what can be done by education to give a fuller development to man's linguistic powers? Let me say, however, that by linguistic powers, I do not mean the ability to talk incessantly. Incessant talkers, as a rule, are not good linguists. A small stock of ideas, and a limited vocabulary, if worked to their full capacity, will make a chatter-box, but not a linguist. The latter has an ample vocabulary completely in his control, a subtle sense of the exact value of every word; a ready ability to express himself correctly, not only as to grammar, but as to the choice of words and the delicate effects of arrangement. There should, it is true, be behind this faculty, a mind opulent in thoughts, but the influence of the study of Latin upon the thinking faculties is a question for the colleges rather than for the academy, and will not be further touched upon in this paper.

Why is not a rigorous study of one's native tongue the most efficacious way to arouse the dormant linguistic powers? The answer seems to me to be; first, because of the tendency of our functions to become automatic and stationary. As the vocabulary of the child increases, there is an increasing disposition to make the words and idioms already acquired, whose use has become easy, answer all requirements. And this disposition finally becomes so strong that growth ceases, and to express himself, the individual will resort to circumlocutions, to words approximating his meaning, or else cramp his thoughts down to the capacity of his vocabulary. An examination of any language will, by the small number of its root-words as compared with its compounds, show this tendency. And it is more than probable that what is thus externally manifested, is a revelation of the actual development of the language centers within.

Secondly; increase of vocabulary is not always accompanied by growth of faculty. Children, so far as their experience goes, are often better conversationalists than educated adults. There is such a similarity in words and more especially in the arrangement of sentences, that new acquisitions slide too easily into the channels of nerve action already opened, to develop new ones for themselves. English sentences admit of comparatively little diversity of arrangement, and few writers or speakers are able to make use of that little. As will be evident from studying the style of an author, his sentences are pretty much moulded in one form; that is, they have come pretty much through the same nerve-channels. Emphasis, one of the most important elements in the expression of a thought, is chiefly conveyed by mechanical stress of voice, and requires of the speaker little comprehension of what he is about to say. I am not saying that this is a bad way; or that English on this account, is adapted for use; but that the sameness of method calls for little development of the language-centers of the brain. We might even look upon this as an economy of brain-power, but it is an economy that seems to dwarf the power itself.

What has been here said of the development of the linguistic faculties by the study of English alone, is more or less applicable to French and German as auxiliaries. French especially, is so similar in words, arrangement, and constructions to English, that it seems to slide, as it were, into the paths of nerve action already opened, and it is doubtful if it contributes as much to the development of the language faculty, as an equal study of English itself. An evidence of this is the difficulty of getting the pupil to do "solid work" in French, and the great facility with which he acquires the language. If French is to be studied as an instrument, this is an advantage; but if ninety-nine per cent of students drop it at the end of their school course, and forget it, retaining only the mental discipline it imparted, this is a serious disadvantage. French sentences too readily suggest the English substitutes, to call out the latent powers of the student.

In Latin, the student is brought to grapple with far different conditions. The forms of the words and their adaptation to express certain relations; the strange constructions; above all the great variety in sentence arrangement, and the way emphasis is conveyed; the foresight into the whole thought necessary for a proper arrangement of the words; all these are so different from what he has before experienced, that they cannot insinuate themselves into the paths of nerve impulses already opened; they must open new ones for themselves. Whether the pupil translates from English into Latin, or the reverse, he is thrown mainly upon his own linguistic resources. It is more than a mere substitution of synonyms; it calls for that concentration of attention that alone begets mental growth. Says Mr. Collar, principal of the Roxbury Latin School, "A boy can do nothing in Latin with his mind sprawling."

I would like to dwell upon this point further, but in spite of much self-denial I have transcended the limits I had assigned to this paper, and instead of argument I will submit the following sentences as illustrations of what has been said above. Compare them with your own English translation:

Moriture Deli,

* * * * * * * * * *

Linquenda tellus, et domus, et placens uxor.—Horace II.: 14, 21.

Delius, il faut mourir,—il faut quitter la terre, et ta demeure, et ton épouse chérie.—Madame De Staël.

Illo Virgilium me tempore dulcis alebat Parthenope.—Virgil. Geor. IV.: 563.

Dans ce temps-la, la douce Parthenope m'accueillait.—Madame De Staël.

CÆSAR AS A FIRST LATIN CLASSIC.

PRINCIPAL R. S. KEYSER, PH. D., MIDDLEBURGH, N. Y.

A weakness in our Latin work is the long time we spend in getting the pupil ready to read real Latin. He labors over the lesson book, reading sentences whose only value is that they illustrate the special grammatical principle he is studying, until Latin seems to him to be simply a mass of material for teaching the grammar Then he is advanced into Cæsar, where he meets with a host of difficulties in grammar and translation, and has a hard struggle to keep his head above water. If he is a pupil in a New York school, the teacher has little time to spend in showing him how to walk alone, for the demands of grammar and criticism are imperative. The Regents' examination in Cæsar covers almost as wide a range as that in any of the more advanced classics; and with such an examination right before them the energies of class and teacher will be fully occupied in covering the required ground. Cæsar is at best seldom an interesting author to young pupils. It can be made so by sufficient labor on the part of the teacher; but the time is so short and the amount of drill work to be got over is so large that a lively interest in the subject is seldom awakened. Few persons remember their Cæsar with any particular affection. By the time he is ready to begin Cicero, the pupil has come to regard the study of Latin as mere drudgery. The edge of his enthusiasm has been blunted; and the eloquent periods of the great orator, and the varied, stirring, eventful life of Old Rome, to which he is then introduced, fail to affect him as they should. In such a subject as Cicero a burning interest in the subject matter he is reading ought to lighten the labor of translation for the pupil; but too often the whole task of creating the interest is thrust upon the teacher, who finds himself contending against a heavy weight of prejudice and indifference. Latin has become a distasteful subject because it was made too dry in the beginning, and the pupil was not advanced by steps of even gradation. The transition from a lesson book to Cæsar is a real strain to the ordinary pupil.

The fact that Cæsar is an unsuitable author for beginners has often been recognized, and in English and German schools it is not, as a rule, read as early in the course as in America. Some of our schools, holding fast to the American tradition of Cæsar as the first Latin classic, try to make the transition to it easier by beginning with the second book. In this way the pupil's earlier lessons are smoothed a little; but the continuity of the history is broken, and interest in the subject matter is lessened. The method also fails to give the full amount of relief that is demanded.

The argument by which the present position of Cæsar is maintained is drawn exclusively from style. It is said that we must have Cæsar in preference to Nepos or Eutropius or Phædrus, or some other easy author, because the learner ought to get his first acquaintance with the language from a master of style who will serve him for a model in his early work in composition. It would seem that this argument should apply with special force to the modern languages, which are nearer our own in spirit and method, and in regard to which our sense of style would be apt to be more keen. But in the modern languages we seek first for grammatical correctness, and then for reading that is easy, interesting and well graded, and leave the pupil to make the acquaintance of the masters of style when he is ready for them. The argument which enforces Cæsar would apply equally well to the reading of the pupils in our common schools. Why should they be reading the simple matter of the third and fourth readers instead of Macaulay or Matthew Arnold? We do not ask them to attend to the masters of style until they are able to read simpler English understandingly.

In the early part of his course the mere labor of translation occupies so much of the attention of the pupil that he has not much left for questions of style. He sees at best through a glass darkly and needs to have the medium made as transparent as possible. By the time he can readily put the sentences of Cæsar into good English, and has mastered the intricacies of grammar far enough to be able to attend to the style, he has finished the book and is anxious to throw it aside for something more interesting. It is doubtful if he has unconsciously absorbed any notions of Latin style which will be of the least service to him in the future.

The value of Cæsar as a model for composition has been much overestimated. The pupil is not in a condition to profit by the careful study of models of style. He is wrestling with the concords and the grammar, and his teacher is pretty well satisfied at this stage of his progress if he produces sentences which do not offend the most common laws of the language. Moreover, no person who aims to write a fine Latin style takes Cæsar as a conscious model for imitation. The English scholars who occasionally publish their *tours de force* in Latin composition, are usually imitators of Cicero or Livy, if they are willing to acknowledge a model. Any of the Latin authors are so far above the beginner that the difference between the best and the inferior is not a matter of much moment to him. No one claims that our best Latin scholars can write Latin equal to that of Nepos or Eutropius, and there can be little danger to his sense of Latin style in permitting a pupil who can with difficulty write a few lines of the simplest Latin to spend some months in reading such authors. In English schools the simpler fables of Phædrus are sometimes read by young pupils. Granting all that has been said against the style of that author by critics, the pupil is still not in condition to be particularly concerned with such higher criticism.

The pupil's interest could hardly fail to be greater and his progress more satisfactory if some easier author were substituted for Cæsar. The argument against such a change drawn from the value of Cæsar's style is fallacious. The pupil is not yet advanced enough to be influenced in his Latin writing by the author he is reading. Indeed, few of our pupils ever get far enough in Latin composition to be said to have such a thing as a style. The only sense of style that the average pupil gets from reading Cæsar is that it is difficult to translate. The strongest opposition comes from the prejudices of teachers. The feeling in favor of Cæsar is mostly found among the teachers of the secondary schools. The colleges are not strenuous in demanding Cæsar as a necessary requirement for admission. They desire candidates to have a certain ability to read and construe Latin;

and if the preparatory schools find that this can be better gained by using some other author than Cæsar, the colleges will be ready to permit a change. It is not necessary, however, to drop Cæsar from the list of authors read in the preparatory course. If some easy author were required in place of Sallust's Catiline, Cæsar could still be retained, and when read a little further on in the course would be found to be much more interesting. The subject matter of Cæsar is probably not so valuable as Sallust, but on account of its style the majority of teachers would no doubt prefer to see the Cæsar retained.

An easier Latin author at the beginning of the course would permit the time devoted to the lesson book to be diminished, and would bring the pupil earlier into contact with the real literature of the language to his increased pleasure and profit. Every effort is made to present in the most pleasing and progressive manner the subjects with which classical studies are now brought into vigorous competition. We cannot afford to neglect any means that may tend to make the Latin work easier and more attractive if we do not wish it to be crowded into a corner. The new arrangement would also help the schools which have to do preparatory work in connection with other high school classes. The Latin work would be better adapted to pupils who never expect to go to college and whose Latin course must be brief. A larger amount of translation would be better for them than grammatical drill in the indirect discourse of Cæsar. The college preparatory work would be stimulated because its beginning would be more attractive, and a larger number of pupils would be drawn into it. The question whether a young man will go to college is often to be decided by the way in which he finds his studies adapted to that end. More would be accomplished in the preparatory course because the gradation would be more uniform and the pupil's progress more steady and rapid.

A glance at the catalogues of English and American publishers of school books shows a striking difference in the treatment of classic authors. The English catalogues contain a goodly number of Greek and Latin authors, and volumes of interesting selections edited for young pupils, while the Americans seem almost contented with the Anabasis and Cæsar. The elementary Latin work in the English schools is evidently much more varied than in our own. Excellence in classical scholarship counts for so much and wins so many rewards in England that teachers try every expedient to help their pupils on in the race as fast as possible. The indications are that the colleges of our country will finally come to follow the plan now so successful in Germany of permitting the secondary schools to determine when their pupils are fitted for college. If preparatory courses are tried by the test of their entire results, the position of Cæsar will be much more insecure.

It is, however, poor policy to wait until a change which is in itself desirable has been forced upon us by circumstances. The more the subject is considered the more feasible will be found the plan of substituting some other author for Cæsar. The teacher who has often been exhausted by his attempts to pump into dull pupils enthusiasm for the disconnected sentences of a lesson book, or the difficult constructions and dry narrative of Cæsar, sighs for relief. Would it not be well to try a change?

THE MINISTRATION OF LITERATURE.

MINNIE CAROLINE CLARK, TEACHER IN THE SOMERVILLE, Mass. HIGH SCHOOL.

Had I the tongue of Mrs. Browning, I would write a new "Cry of the Children." The same cry of the human,—the hunger of body and mind; begging for nutritious thought as daily bread; for simple, wholesome philosophy, and content that would round out the half loaf of poverty.

It should be a cry for helpful, not merely gainful, instruction, and for that broad understanding of science as, "A breadth and impartiality of view which liberates the mind from specialties and enables it to organize whatever is learned, so that it becomes real knowledge, by being brought into true and helpful relation with the rest."

Do you doubt that we suffer from the mistakes of nations that yearly send their thousands of poor to till our ground or cumber it? Yet, we have not ceased to transplant questionable parts of their educational system.

Dishonesty in business and politics, indifference to things of no cash value, the haste and greed of the young educated (?) American, may not be due to the public school; but admitting that there is something rotten in Denmark, do you not believe that the ethics of good reading will prove the best of moral antiseptics?

A French couplet expresses what I take to be the basis of Secondary School Education:

> *Il faut dans ce monde aimer beaucoup de choses*
> *Pour savoir après tout ce qu' on aime le mieux.*

Its object to develop:

1. Intellectually.
2. Physically.
3. Morally.
4. Practically.
5. To fit for college.

* A speech before the NEA Dept. of Secondary Instruction, July 13, 1887, Chicago.

Adapting the above quotation to certain condemned high school methods, it would read:

"We must know many things in this world in order to know"—*how to get into college.*

President Eliot tells us that the decision of a child's profession, or trade, must be made at a time when neither child nor wise parent can rightly tell of future needs and ability. Would it not be well during the formative period to gather all the materials that we wish to enter into a child's make up, and, through the means of books supply light and color, not trusting to put in at hap-hazard a sky-light here and there when the structure shall be done?

It is a mistake to suppose that those who rate literature highly must necessarily undervalue other branches which minister to it.

Industrial training alone will not satisfy: I cannot but believe that *man*-training and not *manual* training was, after all, the making of Hans Sachs and the Meistersingers of Nuremberg.

Teach the "humanities" as I have seen them in the Boston Latin schools, in Waterville, Me., and language becomes humanistic, pulsing with life,—not dead.

I urge the necessity, the beauty of mathematics, and while I quote to pupils the inscription over the gate of the Academus, I do not forget that Plato, the man, is a more valuable study than the geometry he recommends.

Science, the seeing eye and searching mind, becomes a divine thing under a teacher like Agassiz, who was too busy, as he said, to engage in making money.

The high school boy should be made to realize that he who sees not into and beyond the history of his own country, is unfit to judge himself in relation to his times and cannot be an intelligent voter.

In the times of our national peril, Motley affirmed: "There is nothing worth talking about but politics." History from his pen must bear some stirring message to my boys, from whom I often glean that,—"Politics don't amount to anything."

Some one says that the perfect mastery of any honest occupation may raise one into a philosopher; so the perfect teaching of any one subject has a vast inclusiveness.

The colleges may boast of their four-square graduates. (A girl's education, at most, may still be called triangular). But were the works of the Secondary School less anticeptive, and, for every scholar careful to provide more sound English training, I am sure life would be pleasanter, and the melancholy confessions of ignorance and ennui would not lead to despair of life.

This good training includes:

- Ideas.
- Thought.
- Language:
  - *a.* Words.
  - *b.* Sentences.
  - *c.* General expression.
  - *d.* Reading.
  - *e.* Writing.
  - *f.* Pronunciation.
- Principles:
  - Thought.
  - Action.
    - *a.* Manhood.
    - *b.* Womanhood.
    - *c.* Citizenship.

As a teacher of English, what with the requirements in Greek and Latin, on the one hand, and the claims of science, and mathematics on the other, I have been made to feel in the position of a little girl who was seen carrying an umbrella when there were no signs of either rain or sun. When asked why she held it up over her head, she answered: "Well, Father carries it when it rains and Mother has it when the sun shines, so this is the only time I can have it."

I feel this especially with the college division. The work of the scholar follows the pressure of the school. If English is assigned one hour out of eighteen or twenty hours per week, the scholar is forced to follow the prescribed course.

The difficulties to excellent work are:

Having to create a taste in pupils.
Prejudice of the more responsible members of community.
Neglect, indifference of the same.
The free text-book law.
Inability to give due attention to the personal needs of the large number, (300 more or less,) under my charge.
College requirements.

Emerson says: "We send our children to the public school thinking that the teachers, the studies, educate them, but in reality it is their companions, the shop windows, the street."

True, yet oftentimes this precarious education needs counteracting. Suppose my boy chance to fall in with the wrong kind of class-mates; could he ever, even in wandering over our Boston Common, that ought to abound in saints and sages, find a peripatetic philosopher who would serve as "guide and friend?"

Pardon me for expressing by local allusion a deep personal conviction, viz: that, under discouraging circumstances of life, rarely can boy or girl find, outside of books, the help strong enough to take him or her,

From the "Frog-Pond" of despond
To a "Garden" just beyond.

Literature in our high schools is too often a thing of shreds and patches,—better than nothing. The secondary school should supply what will endure the "storm and stress" period of life. This fragmentary learning may last like Benedetto's fragile mosaics, which after a rough sea voyage, when he wished to show them to King Hugoman, were found to have unglued and spoiled; he resolved to practice thereafter the more permanent art of sculpture.

The work of a class may be kept above the average, the bright ones spurring instead of discouraging the dull pupils. There are many gates to English, and it is well to remember that if the small mind cannot go through the broad way, it will go hard with the large-minded, upper end of the class to squeeze through the small gate.

Who that recalls the early delight of "browsing among books," would refuse to give the young such privileges as Charles Lamb claims for his cousin Bridget's reading?

The long, long thoughts derived from a certain book closet let in the wall of an old country house; from certain familiar book shelves wherein the now quaint bindings were first associated with names of classic interest, prove the value of what Holmes calls "knocking about among books."

Much of one's fondness for authors dates back to hearing them as household words on the lips of parents. How can the ten motherless girls counted in my school do without the remembrance of that book made sacred by mother's mention?

Yet parents,—amateur educators, some one calls them,—are often unfit to direct anybody's reading. By pleasant allusion, quotation, citation, the teacher must supply all known deficiencies and probabilities, and make it easy for the scholar to remember a few of the many books that he or she is curious to inspect. *At the risk of being called discursive, I would have the interest of my class.*

I blame myself or my accessions if pupils do not usually wear cheerful faces, though I believe in working our passage through life. One strong objection to the free text-book law is, that it removes the wholesome effect of self help. Still, the natural mind, like the eye, craves brightness, imagination, and, as I glance along our Grand Canal of learning, the absence of color reminds me of that ancient law of Venice which decreed that all gondolas should be painted black. Of what splendid rivalries have our schools been guilty that we feel bound to dull uniformity?

In giving an outline of the English course as followed in our High School, I am conscious of its weak points; these may be wanting in a school where the number of scholars is less, or the teachers more; where English history has already been taught, and a more thorough provision for written work is made.

We have had no text-books, except Swinton's Literature, several years ago; and one Shaw's Literature for every two pupils of the third class last year:—no school library for reading or reference; a membership of 400, and a public library of 13,600 volumes, with a city population of 30,000.

The outline for FOURTH CLASS is:

Longfellow, Lowell.	Complete editions.
Whittier, Irving.	In part.

Hawthorne; outside reading.

Holmes, Taylor, Bryant, Poe.	By selections. Written and discussed biography.

Miscellaneous questions written in blank books, with answers. These suggest the best authors.

Minor writers brought in by class,—name put upon board, discussed, sifted, copied in blank books.

Poetry.	Illustrations of verse. Simple figures, words. Copying and learning of best parts. Historical basis of various poems studied.
Books and stories to illustrate different localities.	N. E. West. North. South. N. Y., etc.

War topics treated of in above.

Clipping days: Days when each pupil must bring in some items of interest from daily papers. Example,—250th anniversary of Harvard College; scholars read orations, talked over topics that came up, and told their interest in the event.

Historians:	Whittier and Hawthorne are ranked here. Motley. Bancroft. Prescott. Parkman.

Book lists of American authors.

Outside reading required in history, biography and special authors.

All reading of standard authors credited.

Special stress laid upon the credit due to the pupil who may choose one of the best ideas to read, learn or reproduce.

THIRD CLASS.

No one can teach thoroughly the development of English language, without having a strong foundation of general history and a special knowledge of English civilization. Would that the scholars under our training might take time to learn how to speak naturally, connectedly upon the few epochs required in literature.

Eight landmarks will do.

Since without books, I must carry English history along with literature development and reading, it is packed up in light marching order.

I urge the scholars to memorize in their own way, if it be easier than the one I suggest. There is often some connection of fact or figures to be pointed out by the teacher; this the pupil is quick enough to grasp. For instance,—if I wished to impress upon a class the time of an important division made in Italy, I might—observe I do not say I *did*—might descend to the gross expedient of saying: Charles the Fat, 888-died. 8! 8! 8!

Another example:

Dryden, teacher of Artificial School of poets died in 1700. Cowper, leader of the next, Natural School, died 1800.

Starting with the Roman Conquest of England, we soon come upon works to read; under Britain we have Shakespeare, Tennyson, Lamar, etc.; Saxon, Danish and Norman England,—Scott, Kingsley, Bulwer, historians.

We are thus forced to notice the authors of our century. Scott serves as the central star, and is readily connected with our first great American authors.

Each scholar writes upon the board such scraps of Anglo Saxon and old English as can be picked up.

I regret to say that so wholesome a dish as Chaucer is served up in this way, but the picturesque, homespun beauties of his style and an idea of the formative period of English is fixed in the mind.

We enjoy the exercises of stripping off the outer leaves of superstition that envelope old monkish legends, to seek some hidden flower of truth beneath.

The Elizabethan Period next furnishes rich variety for outside reading, biography and topical recitation. *Westward Ho!* and the *Merchant of Venice* are the only books I have required in this period. Here I should prefer to make the needful resting-point at first, studying forward and backward to it; but, since the new law, I am unable to break away from certain ancient customs that are better honored in the breach.

If a Third class is ready to enjoy and appreciate Shakespeare, why not let them have it, and trust to Providence for more Shakespearian plays when the senior class needs them?

In one high school the principal refused to let a bright, unusually appreciative class, read Shakespeare's *Merchant of Venice*, on the plea that if they did enjoy it, it would take away their fresh interest for the graduating year.

Passing the next period, with perhaps a gentle debate over Cromwell, and a keen scrutiny of parties, we come to another strong *point d'appui*, grouping authors and events about Addison, Steele and Goldsmith, whose works we study. Here the outside reading allows full scope for the individual taste.

Book lists are kept in view. My plan for written work is to place on the board a list of subjects. After the pupils have read all they can get and have consulted the teacher; they add to this list, deciding upon their special topic and the way it shall be treated. Originality must be secured, and the pupil held responsible for the interest of his hearers. This method secures attention, all-roundness of treatment, repetition of important facts; while each feels his share of credit in contributing to the unity of the whole.

Tom Brown is not so easily read as the pupil is apt to fancy. Language lessons are often made distinct from the ideas of the book; paraphrasing, references of all kinds,—even definition-matches lend variety.

But no book has aroused such general enthusiasm as the *Mill on the Floss*. I wish the scholars might speak for themselves, or that I might set before you a composite photograph of its vital effects.

Under its influence I have seen the very souls of my class expand. Most of them will now tell you that they realized for the first time all that might be gotten out of a book, through a system of careful reading and noting passages.

At the time of writing this, I asked to see again several of the books read and marked. They looked, on the outside, like Falstaff's regiment; but the inside showed signs of original taste,—a quick, or quickened perception for beauties of style, imagery, nature and character,—things suggested for marking.

Yet there was prejudice against this helpful work, with all its rich, strongly stamped lessons of rhetoric and thought.

They came not from parents or children, but from those ignorant of its real value, no doubt. And the "Cry of the Children," to read this book again, I must not hear:

Do we fortify a boy or girl against the daily trials of life, by refusing to open our eyes to the actual?

The hero and heroine are brother and sister; every episode, circumstance, incident, is such as boy or girl sees each day; but which is not always mastered through the force of character that Tom and Maggie display.

An intimate knowledge of the inner and social life of many, many boys and girls, as they were in school, and are now, leads me to condemn the objection to so-called "*novel-reading*." Examine our average high-school pupil ! and see if this old fashioned notion does not call to mind the story of that delicate maiden-lady, who took cold and was like to be carried off—she didn't know why—unless it was eating her gruel *out of a damp bowl.*

Let any student of social ethics compare the reading of the *Mill on the Floss*, with the analysis of *Locksley Hall*, a master-piece included in many literatures (Swinton's, etc.)

Second Class.

Coleridge and Burns.
Contemporaries.
Choice of two biographies besides.
Tennyson : Two long poems,—word-painting.
Occasional essay or reading to class.
And, best of all, selections from Holmes' "*Autocrat*, *Professor and Poet at the Breakfast Table.*"
Miscellaneous questions ; book list of English authors reviewed : { list of 100. / list of 25. / list of 10, etc.
Three eras of Drama talked about.

FIRST CLASS.

Milton, Shakespeare, Wordsworth; Rhetoric applied, if possible, to special study of these authors.

Two or three essays from the best writers,—Emerson, Spencer, Froude, Carlyle, Mill, Macaulay.

In connection with versification we study Byron and Southey. Metre and figures of speech are practiced by original examples. Classes enjoy scanning together and writing on the board any kind of metre that the teacher specifies.

OUTSIDE READING—BOOK LISTS AGAIN.

This outline fails to suggest the various methods by which it is administered. As I believe that each character to his own shall come, through the breadth and depth of good literature, so I believe that in his own way each teacher must attain methods peculiar to himself, of which no penetralia may be set down accurately.

The only true method is the never failing, hardly-won method of inspiration,—a flash light, instead of tallow dips.

The teacher, though he feel his own soul reflected in the broad, universal atmosphere, must seek to prove that "Love stoops as proudly as it soars." To enlist interest and sympathy is the chief aim. The biographies of certain men and women, as discussed in our text books, stand for a series of hard facts. But the life of Swift, or Steele, or Chatterton, may be so treated as to leave a lesson of charity and tenderness; a reverence for what was good and an aversion to the degrading.

What a chance for the lover of Goldsmith, for the admirer of poetry, for the political economist does *The Deserted Village* offer?

What pathos, patriotism, abounds in the stories of *Rodman, the Keeper*, *My Hunt after the Captain*, *The Man without a Country?*

A way to Parkman's fascinating pages may be opened by reading to the class a chapter from Miss Woolson's stories; from Cable's stories of the mixed New Orleans races.

While I read from the latter of man's injustice and cruelty, the heart of the hardest boy softens towards the abused, long suffering brother of "Tit Frire, the Leper."

Experience and enquiry prove that the value of training is in the *tone*.

A fine fellow, graduate of Harvard, said: "What! do you mean to say that scholars are interested in the study of English Literature? I supposed it was usually taught as I have seen it. I learned to hate it."

The over-critical comparisons, tedious to the quick pupils and not followed by the dull ones, have a chilling influence on the interest of a class.

This system of analysis ought not to be carried to such a depth with immature pupils. I advise and help pupils to grow to a book. If duly encouraged they will try. This year a girl who said she could not read *Ivanhoe*, before studying the history of the English language, afterwards wrote a very clear account of the most interesting parts, stating her pleasure therein; a boy who tried twice in one year to "see into" *Hypatia*, this year reports: "It's fine! I see through it now!"

Some people may claim that reading in this broad way does not lead to concentration. Concentration is often degraded into narrowness. Besides the pupil, if he hasn't learned at home, must learn in the class room how, as well as what, to read. The boy who read *Hypatia* had gained in generalization and concentration.

Analysis according to knowledge is my rule. Many times I must be content to know that the pupil has chosen a fine passage, a sound, sweet thought, without pressing him as to his reason for taste. Rich instincts flourish none the better for being pulled up by the roots.

How far shall we overcome the reserve, that, in later years, may teach us to be ashamed of our best feelings?

I know of no more charming trait in girl or boy, than a pretty unconsciousness, perhaps oftenest seen in literature, which draws from the ingenuous mind most curious child notions.

It is a mistake, even in older classes, to keep to lofty thought and abstractions. Leave Milton's warring hosts and come down to the application of these high themes, in the daily contests with self and the world.

Sometimes we long for a story of a boy not so well kept as Tom Brown,—one with ragged shoes and a soul above them, like Lincoln or Burns;—one possibly who would be a "communist," not for money, but for *brains.*

Let us have a real and undisciplined passionate girl like Maggie Tulliver, struggling with trials that are not represented by x.

And if nature can produce anything so ponderable as an oak, by entrusting its germ to a delicate-winged seed vessel, we may believe that a strong, deep thought may grow up from some simple story; "Laddie," or "Rab and his Friends," for example.

Still, there must be heavy thoughts beyond the present understanding; an idea memorized may remain a seeming clod for many years. Suddenly some hard hit in life may smite this geode of thought, and reveal to the possessor its inner beauty and value.

This is the growing, glorious *100 per cent.* which we shall not see and shall not mark.

No doubt our rating of studies would be changed if we could guess at either present or future values.

If all depends upon the character, the suggestiveness of the teacher, teach the boys and girls that they are, to you, more interesting than Miss Alcott's "Jo's Boys" and "Little Women." You will see them draw up to a new, unconscious dignity.

Teach them that the lost art of pleasing and conversing comes from gracious instincts and an exact use of our mother tongue.

Teach them to dare walk under the stars and ask of their own naked souls *what success in life means.*

If I have dwelt longer on the tone of teaching than upon its methods, it is from no lack of interest in the latter.

If in man you have never felt the lack suggested by this:

> "A primrose on the river's brim,
> A yellow primrose, was to him,—
> And it was nothing more."

If in woman you have never realized the beauty and force of these lines:

> "The stars of midnight shall be dear to her,
> And she shall lean her ear in every secret place,
> And music born of murmuring sound
> Shall pass into her face,"

then I shall not have your approbation.

Visionary, is it? Yes; but remember the wisest king of old, and the seer of our modern day, say:

> "*Where there is no vision the people perish.*"

A LIST OF GENERAL READINGS IN THE HISTORY OF THE UNITED STATES.

(1750–1885.)

PROF. ALBERT BUSHNEL HART, HARVARD UNIVERSITY.

Students are recommended, under each period, to read one group of the following references. It is expected that the books mentioned in the group chosen will all be used, and will be used in the order in which they are set down. Students are urged to choose as great a variety of authors as possible. The groups under each period are arranged in the order of preference.

1750–1781. INTRODUCTORY (6 LECTURES).

For all. Johnson's American Politics, 1–17.

1. Lodge's Short History of the English Colonies in America, 41–92, 406–521; Doyle's United States, 202–278. [242 pp.]
2. Frothingham's Rise of the Republic, 1–31, 344–558. [246 pp.]
3. Higginson's History of the United States, 216–295; Story's Commentaries on the Constitution of the United States, I. §§ 146–217; Lodge's Short History of the English Colonies in America, 476–521. [200 pp.]
4. Eliot's Manual of United States History, 156–179; Tucker's History of the United States, I. 70–289. [242 pp.]

5. Doyle's United States, 202–278; Morse's John Adams, 50–240. [260 pp.]
6. Scudder's History of the United States, 161–243; Curtis' History of the Constitution of the United States, I. 1–123. [200 pp.]
7. Lecky's History of England in the Eighteenth Century (English ed.), II. 1–21, III. 267–304, 408–459, IV. 1–64, 90–104, 113–149, 185–200, 247–268. [264 pp.]

1781–1787. THE CONFEDERATION (5 LECTURES).

1. Hildreth's History of the United States, III. 374–410, 425–440, 445–481. Story's Commentaries on the Constitution of the United States, I. §§ 218–271; Frothingham's Rise of the Republic, 569–586. Higginson's History of the United States, 295–308. [163 pp.]
2. Bryant and Gay's History of the United States, IV. 75–100; Tucker's History of the United States, I. 291–347; Story's Commentaries on the Constitution of the United States, I. §§ 218–271; Von Holst's Constitutional History of the United States, I. 25–46. [144 pp.]
3. McMaster's History of the People of the United States, I. 103–454. [350 pp.]
4. Curtis' History of the Constitution of the United States, I. 124–397. [270 pp.]
5. Bancroft's History of the United States (last rev.) VI. 5–194; *reprinted in* Bancroft's History of the Constitution of the United States, I. 1–267; *and in* Bancroft's History of the Constitution of the United States, (Students' ed.). [190 pp.]

1787-1789. THE CONSTITUTION (4 LECTURES).

1. McMaster's History of the People of the United States, I. 417–501; Von Holst's Constitutional History of the United States, I. 47–63; Frothingham's Rise of the Republic, 586–610. [125 pp.]
2. Schouler's History of the United States, I. 36–70; Story's Commentaries on the Constitution of the United States, I. §§ 272–372. [125 pp.]
3. Hildreth's History of the United States, III. 482–546; Tucker's History of the United States, I. 347–383; Lodge's Hamilton, 53–70; Gay's Madison, 88–127. [157 pp.]
4. Bancroft's History of the United States (last rev.), VI. 195–462; *reprinted in* Bancroft's History of the Constitution of the United States, I. 267–278, II. 1–97, 119–350; *and in* Bancroft's History of the Constitution of the United States (Students' ed.). [350 pp.]

5. Curtis' History of the Constitution of the United States, II. 232-604. [370 pp.]

1789-1801. ORGANIZATION OF THE GOVERNMENT (15 LECTURES.)

For all. Johnston's American Politics, 18–51.

1. Lodge's Hamilton, 84–284; Morse's Jefferson, 96–208; Gay's Madison, 128–251; Von Holst's Constitutional History of the United States, I. 64–181; Higginson's History of the United States, 309–344. [585 pp.]
2. Schouler's History of the United States, I. 70–501; Morse's John Adams, 241–324. [510 pp.]
3. Hildreth's History of the United States, IV. 25–704, V. 24–418. [1065 pp.]
4. Tucker's History of the United States, I. 384–627, II. 21–145; Stevens' Gallatin, 58–175. [482 pp.]

1801–1815. FOREIGN COMPLICATIONS (10 LECTURES).

For all. Johnston's American Politics, 52–82.

1. Morse's Jefferson, 209–320; Gay's Madison, 252–332; Stevens' Gallatin, 176–340; Von Holst's Constitutional History of the United States, I. 181–272. [461 pp.]
2. Bryant and Gay's History of the United States, IV. 144–242; Higginson's History of the United States, 344–380; Morse's John Quincy Adams, 25–98; Adams' Randolph, 48–248; [406 pp.]
3. Schouler's History of the United States, II. 1–444. [444 pp.]
4. Hildreth's History of the United States, V. 419–686, VI. 25–374. [617 pp.]
5. Tucker's History of the United States, II. 146–515, III. 21–145. [490 pp.]

1815–1829. CONSOLIDATION (12 LECTURES).

For all. Johnston's American Politics, 83–101.

1. Morse's John Quincy Adams, 98–220; Gilman's Monroe, 125–175; Von Holst's Constitutional History of the United States, I. 273–458. [355 pp.]
2. Bryant and Gay's History of the United States, IV. 242–291; Von Holst's Calhoun, 12–83; Magruder's Marshall, 161–201; Lodge's Webster, 48–172; Higginson's History of the United States, 381–430; Sumner's Jackson, 26–119. [375 pp.]
3. Schouler's History of the United States, II. 444–463, III. 1–450. [370 pp.]
4. Tucker's History of the United States, III. 146–515. [370 pp.]

1829–1841. ADMINISTRATION (13 LECTURES).

For all. Johnston's American Politics, 102–131; Von Holst's Constitutional History of the United States, II. 1–146. [175 pp.]

1. Sumner's Jackson, 136–386. [250 pp.]
2. Roosevelt's Benton, 69–236; Morse's John Quincy Adams, 236–308. [235 pp.]
3. Von Holst's Constitutional History of the United States, I. 458–505, II. 147–405. [315 pp.]
4. Schouler's History of the United States, III. 451–531; Lodge's Webster, 171–240; Von Holst's Calhoun, 85–221. [285 pp.]
5. Bryant and Gay's History of the United States, IV. 282–349; Greeley's American Conflict, I. 85–147; Draper's History of the Civil War in America, I. 311–338; Sumner's Jackson, 164–249, 343–373. [290 pp.]
6. Wilson's Rise and Fall of the Slave Power in America, I. 165–455. [290 pp.]
7. Tucker's History of the United States, IV. 17–398. [380 pp.]
8. Benton's Thirty Years' View, I. 121–739, II. 7–210. [820 pp.]

1841–1849. TERRITORIAL QUESTIONS (5 LECTURES).

For all. Johnston's American Politics, 132–150. [20 pp.]

1. Bryant and Gay's History of the United States, IV. 350–386; Greeley's American Conflict, I. 147–185; Von Holst's Calhoun, 222–295; Lodge's Webster, 241–263. [160 pp.]
2. Draper's History of the Civil War in America, I. 385–399; Roosevelt's Benton, 237–316; Von Holst's Constitutional History of the United States, III. 198–215, 256–290. [150 pp.]
3. Wilson's Rise and Fall of the Slave Power in America, I. 456–651. [195 pp.]
4. Von Holst's Constitutional History of the United States, II. 406–714, III. 1–290. [600 pp.]
5. Benton's Thirty Years' View, II. 211–694. [480 pp.]

1846–1853. COMPROMISE OF 1850 (6 LECTURES.

For all. Johnston's American Politics, 151–157. [5 pp.]

1. Greeley's American Conflict, I. 185–224; Von Holst's Calhoun, 291–352; Lodge's Webster, 264–332. [170 pp.]
2. Bryant and Gay's History of the United States, IV. 387–411; Roosevelt's Benton, 316–340; Benton's Thirty Years' View, II. 694–787: Davis' Rise and Fall of the Confederate Government, I. 14–21. [150 pp.]

3. Von Holst's Constitutional History of the United States, III. 291–597, IV. 1–231. [535 pp.]
4. Wilson's Rise and Fall of the Slave Power in America, II. 1–303. [300 pp.]

1853–1860. THE SLAVERY CONFLICT (8 LECTURES).

For all. Johnston's American Politics, 158–179; Von Holst's Constitutional History of the United States, III. 563–597. [55 pp.]

1. Greeley's American Conflict, I. 224–309; Bryant and Gay's History of the United States, IV. 410–434; Davis' Rise and Fall of the Confederate Government, I. 22–46; Draper's History of the Civil War in America, I. 406–437. [165 pp.]
2. Von Holst's Constitutional History of the United States, IV. 232–461, V. 1–490. [720 pp.]
3. Wilson's Rise and Fall of the Slave Power in America, II. 304–672. [365 pp.]

1860–1861. SECESSION (6 LECTURES).

For all. Johnston's American Politics, 179–188. [10 pp.]

1. Greeley's American Conflict, I. 309–449. [140 pp.]
2. Bryant and Gay's History of the United States, IV. 435–446; Davis' Rise Fall of the Confederate Government, I. 17–85, 199–289. [140 pp.]
3. Draper's History of the Civil War in America, I. 438–567. [130 pp.]
4. Wilson's Rise and Fall of the Slave Power in America, II. 673–704, I. 1–108. [140 pp.]

1861–1885. PERIOD OF UNION (7 LECTURES).

For all. Johnston's American Politics, 188–247. [60 pp.]

1. Lalor's Cyclopaedia, III. 532–556; Johnston's History of the United States, 297–412. [140 pp.]
2. Stanwood's Presidential Election, 236–374. [140 pp.]
3. Gilman's History of the American People, 501–598. [100 pp.]

INTERCHANGE.

Communications upon any educational topic may be addressed to G. R. Cutting, Lake Forest, Illinois.

PRESIDENT JAMES MC COSH, COLLEGE OF NEW JERSEY.

In answer to your inquiry I have to state that I am opposed to secret societies in colleges. Any good they do can be better accomplished by open societies, which of course can be made as private as the members please, without being secret. When they existed here they were causes of mischief, holding out temptations to the students and producing dissension between the Faculty and the students. It took us some trouble to put them down, but now that they no longer exist, the college is in a much better condition. The great body of the students would oppose their introduction into Princeton College.

PRESIDENT JULIUS H. SEELYE, AMHERST COLLEGE.

The character of secret societies in a college will depend entirely upon the character of the college, and they will be favorable or adverse in their influence according to the higher or lower tone of college-life prevailing around them. With us they are entirely satisfactory and useful. In many ways they contribute to the advantage of the students and the well-being of the college. In other institutions I know they have been a very fruitful source of ill, and I do not think that any general rule farther than this could be propounded concerning them.

PRESIDENT C. K. ADAMS, CORNELL UNIVERSITY.

In my annual address to the students at the beginning of the year, which is intended as a kind of fatherly talk, I am in the habit of giving some advice in regard to secret societies. I always advise students to wait before joining. I tell them that from an experience of twenty-five years, or such a matter, I am satisfied that the influence of a good society is beneficial; that the influenee of a bad society is bad. The societies influence men just as, *a priori*, we should suppose they would. I think as a rule, they keep bad fellows from excesses, though this is not invariably the case, because sometimes the bad element in a society will get the upper hand. This I have never known more than once or twice in my experience, but if it does happen, the society or chapter has to be dealt with by means of a strong hand.

As a rule, the bad fellows in a society are kept under constant restraint, partly from the influence of the good fellows, and partly from fear of bringing reproach upon the society itself.

There are three or four societies here whose influence on the men I believe to be good. There are two or three others whose influence is at least doubtful.

I have never thought it quite wise in any college to forbid the presence of societies, for the reason that they always come in sooner or later, and it is better that they should have the sanction of good people, in such a way that they can be managed, than to burrow in the ground where there is every opportunity to develop their worst features. I am told that even with all the iron clad rules they have adopted at Princeton, secret societies have existed there almost without interruption for a good many years past. Doing their work absolutely in the dark, they are not amenable to influence.

As matters are here, if I find that a fellow is going astray, I find it much more easy to influence him through the better members of a society than to attempt any direct measure of regeneration.

There is another feature of the matter that ought not to be overlooked, and that is, that society influence probably interferes a little with the very highest progress of the very best fellows. This is only saying that a fellow who is by nature "Double First," will do better if he is left entirely alone than to have any responsibility in the way of care of his weaker brethren.

On the whole, therefore, I think the very best students are a little less excellent as students by reason of being in societies. But, on the other hand, they usually get a kind of finish that is undoubtedly of not a little importance, and it is a question whether they do not gain in manner rather more than they lose in point of scholarship.

My experience has led me to take this ground in regard to the introduction of societies into college; I would regard their ultimate coming as inevitable. I would, therefore, welcome societies that should convince me that their aims were elevated, but I would discourage and keep out those of another kind.

T. C. BURGESS, STATE NORMAL AND TRAINING SCHOOL, FREDONIA, N. Y.

It is my opinion that college secret societies are based upon a false principle—one which, as carried out in our colleges, works harm, and if applied elsewhere in the affairs of life, might result in vast evils. If their purpose is to contribute anything valuable to college life, they should be open to all alike and free from secrecy and exclusiveness. There are apparent advantages, but they are apparent rather than real. There are none which might not be joined to better advantage if secret societies were abandoned. Expensive habits, dissipation, idleness, exclusiveness, and other evils which they foster, would be largely avoided, and all the advantages they claim, together with many others, would be gained, in open organizations devoted to literary work.

Secret societies divide the college into factions often in open hostility to each other, and create jealousy and rivalries which last through life. Men are not rated for what they are worth, but as belonging to this or that society. A false state of society arises within the college and often the efforts of the faculty to secure good order and the best intellectual results are seriously hampered. The abolition of college secret societies would, it seems to me, do much to improve the moral and intellectual value of our colleges.

PROFESSOR OREN ROOT, HAMILTON COLLEGE.

I deem the Greek letter societies as on the whole a great advantage. They have dangers, as do all human devices, and especially those which enter the social field. Under a wise, steady administration in a college, the evils are really, so far as the societies go, nothing ; envy, jealousy, rivalries, heart burnings, etc., did not begin with Greek letter societies, and under reasonably wise guidance they are not increased or strengthened by them. I value the influence of my society as among the best and purest of my life, and my estimate enhances as I grow older and see more of the upcoming of young men. Some of the more recent western societies I formed a bad opinion of when I was brought in contact with them in Missouri. They were too elaborately organized and had too much machinery with too little care in the choice of college and men.

I should say that a well-organized Greek letter society, starting with good material and proper spirit, would be of great value in a young college. Meanwhile I am free to confess that here at Hamilton we have rather too much of a good thing—aggravated by the existence of an anti-secret organization.

You may notice that I use the term Greek letter society. These college fraternities are not, strictly speaking, *secret* societies. They are strongly "exclusive" and I reckon the "secrets" are hardly more than devices to emphasize this exclusiveness.

COMMUNICATIONS.

To the Editor of THE ACADEMY :

I have read with great interest Mr. Lang's article on the teaching of modern languages and yet I must beg to differ from him on certain points of importance. Your excellent journal has, since its beginning, been a free tribune, and if you deem, after perusal of this letter, that my side of the question is worthy of attention, I should be glad to have you present it to your readers.

Mr. Lang believes that studying a modern language as "a more or less useful help in travel or trade" is deserving only of a sarcastic smile. My conviction is that it is a great mistake to value a study because it has no practical use and a greater still to despise it for the reason that it may give pleasure to our pupils or be of some actual benefit to them, even if that benefit would result in gaining dollars and cents. The common every-day expressions which fall under Mr. Lang's proscription are the broad basis upon which the whole superstructure of a language is resting. The loftiest words are derived from every-day parlance. To discard "prattle" is therefore unscientific and contrary to every sound principle of philology. If Mr. Lang means that the "prattle" to be excluded from the class room is only a succession of meaningless sentences, I would simply say that very few teachers of the Natural Method have ever come down to the dead level of the usual school grammar exercises. In fact any teacher of the Natural Method would find it impossible to converse for an hour about "my neighbor's coat" or "the pattern which pleases your sister" or "the painter who has made that painting." These brilliant subjects are taken at hap hazard in succession from one of the most popular grammars. But I am afraid that many learned professors prefer the above quoted exercises to the connected sentences of an object lesson, or one given on an inductive plan. And it is on account of this abhorrence of the spoken language that we see the best of them fall into mistakes which one who is a teacher even through "the mere circumstance of birth in a foreign country" would carefully avoid.

I have in mind now the most recent issue of the *American Journal of Philology*, (Vol. 8 No. 2.) in which an able professor of the Romance languages, accepts on insufficient authority the Indian origin of what he calls the Canadian word *micmac*. Now any native French teacher would have recognized this as a popular expression widely spread throughout France in common use even among children. And any native German teacher would probably have compared it with the popular German *Mischmasch.* Can anything show better how a knowledge of the every day language is of use for the higher philological speculations? For in the present instance no one will think of accusing the writer of ignorance but only of not having present in his mind, he not being a Frenchman, the very common and popular use of a French word in France.

I would then say that the task of preparatory schools is to give the pupils mastery of the easiest forms, to teach them the use of ordinary locutions, while it becomes the college professor to explain the language previously acquired by the laws of philology and use it for literary purposes. And although I am personally a lover of philology, and have been for years a humble student at her shrine, I am not yet prepared to say that the knowledge of the great literatures is not of a much greater importance to the larger number of undergraduates than the laws of permutation of sounds and letters.

If Mr. Lang had spoken exclusively of future teachers, I would readily agree with him. I grant that a foreign teacher who has no special preparation and is ignorant of English, and often even of his own language, who is not conversant with the best literature of his country, is undoubtedly a very poor acquisition to any school. Will not Mr. Lang grant now in return that Americans, even college trained men, who are unable to pronounce a sentence in the language they pretend to teach are at least as baneful to schools? What does their theoretical knowledge of phonetics amount to if practically they are unable to produce a correct sound? It would be a glorious day for modern languages if the two kinds of persons referred to could be kept from the school room. I have often wondered why some of the great American colleges have not taken this matter of foreign teachers in hand. If an American diploma of capacity could be granted by the proper authorities to foreigners without requirements of residence, the evil would be diminished, and institutions and families feel assured that they have not become the prey of some wandering adventurer. The requirement of one year at least of residence in a college for the granting of diploma debars most of the capable foreign teachers, who cannot afford to spend this time, without compensation for their labor.

I have nothing to say against Mr. Lang's position and final conclusion as to the order of studies. Only allow me as a Natural Method man to call his attention to the fact that what he wishes is in entire conformity with the principles I have long since adopted, and not one of his propositions has anything at all contrary to the Natural Method. I would prefer at the outset to give the pupils some inductive object lessons and take them to the book a little later, but this divergence is not radical.

Mr. Lang's article proves one thing at which I heartily rejoice, namely, that it is possible to make up a programme which would conciliate most of the teachers both in the old and new methods.

Yours very truly,
ALPHONSE N. VAN DAELL.

BOSTON, MASS., October 21.

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

In commenting on the changes of the summer, the *School Bulletin* calls attention to the fact that of the 61 college graduates who have recently received appointments in this State, there are eleven each from Syracuse and Cornell, four each from Rochester, Hamilton, Madison and Alfred, three each from Wesleyan and Union, two each from Amherst, Tufts, St. Lawrence and Union, and one each from Yale, Williams, Colby, Hobart, Allegheny, Lafayette, Marietta, W. C., and Randolph Macon.

At a recent gathering in Elmira, Dr. C. N. Sims, Chancellor of Syracuse University, called attention to the fact that gifts aggregating more than $600,000 had been received during the past few months. Not to mention smaller donations, there are $50,000 left by Dr. J. Dorman Steele, to endow a Chair of Theistic Science, which will be employed for that purpose the coming year, and the Holden Observatory, erected by Mr. E. F. Holden as a memorial to his son, Charles D. Holden, the building for which will be dedicated next month. Last April the library of the historian Von Ranke was purchased for the University by Mrs. J. M. Reid, of New York, on the condition that a fire-proof building should be erected, and this latter is now well under way. From another source the University last month received $50,000, the income of which, less a life annuity to the donor, will be devoted to the purchase of books. Rev. R. H. Robinson, D. D., one of the trustees, died last November, leaving the University a considerable gift, and to crown all in August, Mr. John Crouse, of Syracuse, formally announced his purpose to build for the University a college for Women, which is to bear his name and be his memorial. The plans for the building are already drawn. It will be one hundred and ninety feet long and one hundred and sixty feet wide, four stories high, built of red sand stone, and will cost $350,000.

The following is a list of the successful candidates in the recent examination, held by Superintendent Draper of this State. The examination was held simultaneously in New York, Brooklyn, Newburgh, Albany, Plattsburg, Watertown, Utica, Syracuse, Rochester, Buffalo, Salamanca and Elmira. It was the fifteenth examination for life certificates held by the State Department of New York. The subjects in these examinations are *Arithmetic*, *Book-Keeping*, *Algebra*, *Geometry*, *Latin*, *Grammar*, *Composition and Rhetoric*, *General Literature*, *Drawing*, *Geography*, *History*, *Physics*, *Chemistry*, *Botany*, *Zoology*, *Physiology and Hygiene*, *Astronomy*, *Civil Government and School Law*, *Methods and School Economy* and *Geology*. Those who care to see the questions will find the entire list in the *School Bulletin* (Syracuse) for September.

Charles A. Black, Schuylerville, Saratoga County.
Mabel J. Campbell, Cohoes, Albany County.
Charles A. Coons, Valatie, Columbia County.
Charles S. Davis, Saratoga Springs, Saratoga County.
J. Edman Massee, Saratoga Springs, Saratoga County.
Lucia A. Jaques, Ticonderoga, Essex County.
John H. Winman, Fonda, Montgomery County.
Roland S. Keyser, Middleburgh, Schoharie County.
William S. Mills, Brooklyn, Kings County.
George A. Knapp, Prattsburgh, Steuben County.
Alvin Z. Pierce, Jasper, Steuben County.
Lottie Niles, Hornellsville, Steuben County.
Jennie B. McMurray, Margaretville, Delaware County.
Joseph T. Tracy, Goshen, Orange County.
Darwin L. Bardwell, Greenport, Suffolk County.
John K. Clark, Jr., Sparkill, Rockland County.
Clarence Edwards, Sharon Springs, Schoharie County.
Samuel J. Preston, Mamaroneck, Westchester County.
Joel J. Crandall, Salamanca, Cattaraugus County.
George W. Gibby, Ellicottville, Cattaraugus County.
Henry S. Howard, Jr., Watkins, Schuyler County.
S. McKee Smith, East Syracuse, Onondaga County.
Hiram J. Smith, Hastings Centre, Oswego County.
Virginia Beauchamp, Baldwinsville, Onondaga County.
May C. Pryne, Mohawk, Herkimer County.
De Forest A. Preston, Baldwins, Queens County.

Mary Eliza Dann, Warsaw, Wyoming County.
Mary S. Eaton, Palmyra, Wayne County.
George W. Pye, Rochester, Monroe County.
George H. Walden, Rochester, Monroe County.
Fanny A. Johnson, Watertown, Jefferson County.
Harriet L. Webb, Sackets Harbor, Jefferson County.
Wilber W. Howe, Ephratah, Fulton County.
Leila Bull, Pittsfield, Mass.
Fred D. Corey, Rowayton, Conn.
Jennie S. Currey, Weehawken, N. J.
Charles O. Dewey, Englewood, N. J.
Henry T. Dawson, Newark, N. J.

The editor of THE ACADEMY prepared for the Regents' Convocation, last summer, a paper on "Overcrowded Courses of Study." If one may judge from various reports, it is evident that he failed to make himself understood. He did not have specially in mind the occasional cases in which children pursuing courses of study break down. He was thinking rather of the failure of our courses to help pupils. No course of study is good that breaks down the health of the pupils pursuing it, but it may leave the health unharmed and yet be a bad course of study. We look for some positive good effect from a properly arranged course. It should be like the system of culture by which the skillful gardener produces fruit and flowers in the highest perfection. It would be small praise of a system of horticulture to say that after all it did not kill the plants. We must have not only negative freedom from bad results, but also the actual showing of positive results for good, before our courses can merit praise.

Perhaps we can make our meaning clearer by an illustration. The following paper was handed us by a teacher in a city high school. It was written by a pupil who had completed all the grades of the lower schools in the city where it was written. The time allowed for the writing was forty-five minutes. The questions are not given, as they have no special bearing in the case. The paper is reproduced *verbatim, et literatim, et punctuatim.*

1. Tendon is affected either by muscular tissue, or by means of white firm masses glistening known as fibious tissue

2. Ligaments is a kind of element in which they used to joined one joint to another when they are broken. They are used to connect bands or cords.

3. Muscular irritability is where they have poor food and not enough to eat the body becomes weakened.

4. Involutary muscular moved independly of the will, the heart.

5. Involutary muscular is not attacked to bones but to structure and they are spindle shape, and they have no stripe.

6 For alternate rest and exercise, and for healthy growth and be in the open air.

7 Uses of the fat in the body is to covered the bones, depend upon, age, race, weather, climate occupation, and to covered the muscular, and they are about one twentieth of the body is fat, fat is found all over the body except the teeth, the nail.

8. Triceps muscular restore to bent part to a straight condition, those of the back, of the arm.

Abductor muscular are those which moved the part from the axis of the body.

9. They form the walls of the organ. Be in good health and make the muscle stronger, and have good blood.

10. Breathing power is devolped make the digestion stronger, make the animal heat increased, accumalatein of the fat diminished, and to be in a open air, and to have lot of outside exercise.

Now this pupil has been for nine years at work on an elaborate and well-organized course of study. She has been compelled to learn thousands of things unlikely ever to be of the slightest use to her. She has had oral instruction in elementary science and been initiated into the mysteries of the counting-house and the stock exchange. She has been under many different teachers; they cannot all have been bad, some of them were doubtless good. In any case they "got her over the course," and "passed" her successively from grade to grade. Yet somehow we feel that her mind is not perfectly clear, and that in some way she is not yet fairly equipped for life's work. Perhaps she lacks only a high school training to complete her education, perhaps at the end of four years more she will stand forth licensed to teach in her turn. We have known such cases.

We do not know what may be the vocation in life of this particular young lady, or what sphere she is destined specially to adorn. It might have been difficult by any course of study or method of teaching to make her a brilliant writer or a profound thinker. But the feeling is forced upon us that the result of her nine years' work is not all that could be desired, even granting her capacity to be ever so limited. The fact that she has worried her way up the schools in about the average time would indicate that her ability was what the makers of our courses of study should expect to find in the public schools, and therefore that courses of study should be designed to fit just such cases as this, to make boys and girls no brighter than this one fitted mentally, as far as possible, to perform their share of the world's work.

For some years there has been a steady pressure exerted to introduce new studies into the public schools. New sciences have arisen and old ones have been carried forward, and because there are many things interesting to know it is claimed that these things should be taught in schools. Moreover there has been and is still the greatest confusion and misunderstanding regarding so-called practical studies.

A gifted specialist in Chemistry wins fame and money by his discoveries and straightway Chemistry is brought forward as a practical study and introduced into the course. A trained thinker, with active mind, sturdy physique and nimble fingers, gets a good salary as a stenographer, and straightway short-hand asks a place for itself as a practical study. Typewriting follows. In fact, there is scarcely a branch of knowledge or a form of human activity that does not at times urge its claims, usually on the ground that it is *practical*.

Meanwhile there are two things that are eternally practical and at the same time entirely humanistic. They are ideal accomplishments and their rarity is such as always to distinguish their possessor. They are as well adapted to the poor as to the rich. They become the artisan not less than the capitalist. They nourish youth, they make old age charming, they ornament prosperity, they solace confinement and ward off poverty, they delight at home and help abroad, they are of use at all times, during all seasons, in every emergency. These are the ability to think and the ability to write or speak well one's own language. Can there be discovered a course of study which shall secure these?

*BOOKS RECEIVED.**

The Story Without an End. Translated from the German of F. W. Carové, by J. C. Pickard.

A New Part-Song and Chorus Book, for High Schools. Boston: D. C. Heath and Company. 1887.

Exercises in English Syntax. By A. G. Bugbee. Syracuse, N. Y.: C. W. Bardeen, Publisher. 1887.

Elementary Classics. *Stories of Roman History from Cicero.* By G. E. Jeans, M. A., and A. V. Jones, M. A. London: Macmillan & Co.

Phosphorus Hollunder. Novelle von Louise V. François. With explanatory notes by Oscar Faulhaber, Ph. D. Boston: D. C. Heath & Co. 1887.

Italian Grammar. By C. M. Grandgent, Tutor in Modern Languages in Harvard University. Boston: D. C. Heath & Co., Publishers. 1887.

The Riverside Literature Series. *Birds and Bees.* Essays by John Burroughs. With an introduction by Mary E. Burt. Boston: Houghton, Mifflin & Co. 1887.

The Colonization of America, a book for American boys and girls. By Arthur Gilman, M. A. Chicago: The Interstate Publishing Co. Boston: 30 Franklin street.

The Discovery and Exploration of America, a book for American boys and girls. By Arthur Gilman, M. A. Chicago: The Interstate Publishing Co. Boston: 30 Franklin street.

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*Any of these books may be more fully noticed hereafter.

Educational Mosaics. A collection from many writers (chiefly modern) of thoughts bearing on educational questions of the day. By Thomas J. Morgan, Principal of Rhode Island State Normal School. Boston: Silver, Rogers & Co., publishers, 50 Bromfield street. 1887.

The Practical Elements of Rhetoric with illustrative examples. By John F. Genung, Ph. D. (Leipsic), Professor of Rhetoric in Amherst College. Boston: Ginn & Co., publishers. 1887.

Le Cid. Tragédie en Cinq Actes. De P. Corneille. (1636). With biographical notice, historical introduction, glossary, historical and literary notes by G. Eugène Fasnacht. London: Macmillan & Co.

The Palace of Vanity. Translated from the French of Mme. de Girardin, by Lucy Wheelock.
Chicago and Boston: The Interstate Publishing Company.

Brief Institutes of General History. Being a companion to the author's "Brief Institutes of our Constitutional History English and American." By E. Benjamin Andrews, D. D., LL.D., Professor of History in Brown University. Boston: Silver, Rogers and Company. 1887.

Stories of Our Country. Compiled and arranged by James Johonnot. New York: D. Appleton & Co. 1887.

This little book seems to us one of the most admirable additions to our supplementary readers which we have ever seen. It contains thirty-six short stories, which are presented here in most attractive form, and every one of which ought to be familiar to every American boy and girl. Some of them are taken from the narratives of well-known authors who have succeeded in presenting them in a remarkably vivid and interesting way. Others are apparently written by the editor. They are all, however, bright, interesting, and well told.

Exercises in False Syntax and Other Forms of Bad English. By H. I. Strang, B. A., Head Master at the Goderich High School, Ontario.

This little volume admirably answers the purpose for which it is designed. It contains a large collection of sentences methodically arranged and embodying the common errors in speech and in written composition. It would prove an excellent accompaniment to any work on Rhetoric.

Similar in character to Abbott's "How to Write Clearly," it is superior in containing more practical and better arranged groups of sentences. Those who, in teaching Latin, have become accustomed to the sprawling and complicated literal translations which Cæsar's "Commentaries" usually receive will be pleased to see these mutilated specimens of English recorded for analysis and correction.

Lights of Two Centuries. Edited by Rev. E. E. Hale. Illustrated with fifty portraits. New York and Chicago: A. S. Barnes & Co.

This is a book of six hundred and two pages, containing the lives of fifty famous men who have lived during the eighteenth and nineteenth centuries. They are classified as Artists and Sculptors, Prose Writers, Composers, Poets, Inventors. The narratives are written in good style, not long enough to be tedious and not too short to be interesting. Some of them are specially good, containing clear and just characterizations of the men about whom they are written. Their use should not be limited to the school room, and they will find a place in all the best juvenile libraries.

There is undoubtedly at the present time far too much produced under the guise of reading matter for the young. Most of it is worthless. Much is positively bad. The present volume, however, is one which we can heartily welcome. The paper is good, the type excellent, the page attractive. To our thinking the latter is disfigured somewhat by the attempt to represent phonetically the pronunciation of various names. Such attempts, except in rare cases, are of little use. Pronunciation of foreign names cannot be exactly represented to the eye of readers familiar only with the English language, and readers who are familiar with a foreign language rarely need help in the pronunciation of its proper names. In the present work we notice several cases where assistance is hardly needed, as in the case of Virgil, page 108, Monro and Girten, page 168, and Copenhagen, page 51. Others are inaccurate, as where the final syllable of Voltaire, page 40, is made identical with that of connoisseur, page 42. In all other respects, however, we find the present work much superior to any book of the class which we have seen.

A German Grammar for Schools and Colleges. Based on the Public School Grammar of A. L. Meissner, M. A., Ph. D., D. Lit., Professor of Modern Languages in Queen's College, Belfast, Mitglied der Gesellschaft für das Studium der neueren Sprachen zu Berlin. By Edward S. Joynes, M. A., Professor of Modern Languages in South Carolina College. Boston: Published by D. C. Heath & Co. 1887.

It would seem that a foreign text-book must possess peculiar merits to be remodelled and republished in America within two years of its first appearance. Dr. Meissner's preface to his *Public School Grammar*, published by Hachette, bears date of October, 1885, and already this new grammar, based upon his work but in certain important respects differing widely from the original, comes to us from the hand of a well-known American scholar and teacher.

It is easy to name the "points" of Dr. Meissner's book, and equally easy to infer the reasons for the extensive changes made by Professor Joynes in order to suit it more fully to the needs of American students.

As its title indicates, the original work was intended for pupils of secondary schools; hence the "practical" largely modifies the scientific method of treatment. The language is taught for its own sake. The line of instruction seeks lines of least resistance in adolescent minds. As these probably do not coincide with the demarcations of the parts of speech, the author's plan does not strictly follow the traditional way of presenting the parts of speech in order and once for all, but, while not wholly breaking with it, claims to bring forward what is most needed as the need is felt. In fine, the book embodies the method of presenting his native tongue to English boys which a practically-minded German of high attainments as a philologist has found most convenient and successful in his own teaching. Teachers of equally wide experience have a right to differ with him as to whether it is the best method; they can hardly fail to agree that, for the teacher in whom experience has not developed an individual method, it will prove a good one. As an instance of the intentional sacrifice of scientific treatment to the practical, one may cite the classification of strong verbs by the root-vowel of the infinitive, a plan which the present writer has found to be excellent by the test of the class-room. The exercises are fresh, avoiding the extremes of Ollendorfism and classicism; they employ the language of "speaking men." The importance of rising above mere phrase-making or even chat, is recognized in a set of continuous passages for translation into German.

The empirical side of the original work is still more developed by the introduction of short extracts, of about a page each, from modern German writers, all dealing with Germany and the Germans. These serve as a basis for conversations, and are contrived in large part, which indeed is to some extent true of the daily exercises, to render the learner fluent in the vocabulary which one would need in a tour on the continent. These, as we shall see later, disappear from the American book.

One feature of the work which, so far as we know, is wholly original, and for which Professor Meissner deserves the warm thanks of all teachers, is his treatment of derivation and composition of words. We even fancy that his grammar will lead to a radical change in the way of dealing with this important subject. Hitherto it has been treated, if at all, drily and abstractly at the end of the book, which the majority of beginners never reach. In Meissner the subject immediately follows Accidence, preceding Syntax.—surely a logical order,—and it is illustrated by exercises with the same fullness as inflection or the use of modes and tenses.

The part of the Public School Grammar which leaves most to be desired is, naturally perhaps, the Syntax. To the American teacher, familiar with Whitney and Brandt, it cannot but seem fragmentary and inadequate.

It is interesting to note the changes introduced by Dr. Joynes as an index of the present status of modern-language study in this country—at least its academic study. Here, the chance of these languages ever being of necessity employed in actual intercourse being more remote, the importance of their study as a means of literary culture or linguistic discipline, or as a help to a profounder sentiment of the forms and beauties of English speech, from the scholarly point of view becomes paramount, while at the same time oral practice is widely recognized as a most powerful auxiliary. Such, at least is the creed of the body of scholars composing the Modern Language Association of America. It is manifestly as a believer in these things that Dr. Joynes, recognizing valuable qualities in this foreign text-book, undertook to suit it to American needs. The principal demand here being from high schools and colleges, he has aimed to produce from the Public School Grammar, a manual which, while adapted to beginners, should be capable of serving them up to the point where purely scientific study begins, if at all,—in the most advanced college classes. To this end much new material has been added. To gain space for this and not make too voluminous a book, it was necessary to part with some features of the original. The American editor has not hesitated to eliminate those interesting *Sprechübungen* and the accompanying *Fragen*, as well as the German-English exercises after Part I., regarding these as less essential in view of the fact that pupils should early be put to reading German stories, which best illustrate the language and offer a good basis for conversation.

Comparing in the two books the three parts into which they are divided: I. Orthography and Accidence; II. Derivation and Composition; III. Syntax, we find less departure in Parts I. and II. than in Part III., yet even here one observes numerous readjustments and useful additions. Several synoptical tables, such as teachers learn to make in seeking to systematize their pupils knowledge of facts, are inserted. Of this sort are the table classifying nouns by gender, the lists of endings for noun and adjective declension of ablauts in strong verbs. At the end of Part I. there has been added a remarkably full and lucid treatment of the subject of order of words in the German sentence. So, too, at the end of Part II. appears a valuable chapter on the relation of German and English, presenting Grimm's Law in an elementary way, with extended illustration by common examples of its more obvious application to these two languages. In Part III. Dr. Joynes has proceeded almost as an independent author, and Dr. Meissner will find some difficulty in recognizing his offspring. It is a question whether from a grammar for secondary schools the whole subject of syntax may not wisely be dropped, trusting to the impossibility of the teacher's escaping the brighter pupils' insistance on an explanation of such vital matters of construction as are involved in their daily lessons. Hence we have spoken of the weakness of this section of the Public School Grammar as perhaps natural. In reworking it Professor Joynes has taken an entirely new point of departure. With Part II. school-boy work is ended, and the grammar becomes a hand-book for more advanced pupils, who are now pursuing German as a language-study. Possibly it may be used merely as a work of reference; still sentences for practice are there, if desired in stronger force even than in the original. The arrangement is logical; the ground is covered with great thoroughness, in securing which the best sources seem to have been freely drawn upon. Everywhere use is made of the analogies of the English language.

Two points remain to be briefly mentioned. First, the great improvement made by the introduction of a complete scheme of paragraphing, subordination of matter by use of different type, very abundant cross-references, together with full vocabularies at the end of the volume, and a complete index,—accompaniments which we in America have come to consider as indispensible to a perfect class-book. Again, one is struck by the numerous places where the editor takes the teacher, as it were, into his confidence. Occasionally they are mildly *doctrinaire*. Professor Joynes assumes, no doubt justly, that many teachers who will use this book, will be lacking in experience. To such he addresses these frequent "asides," which teachers of riper experience are not supposed to hear. Coming from one whose term of service as a teacher in this department covers the whole period of its rise in scholastic esteem from indifference (not to say contempt) to recognition and honor, if these suggestions are overheard by those for whom they were not intended, they will possess their souls in patience, in view of the fact there is as yet no good normal school for the special training of teachers in modern languages.

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

VOL. II. DECEMBER, 1887. NO. 9.

AIMS AND METHODS IN MODERN-LANGUAGE TEACHING.

SAMUEL THURBER, MASTER IN GIRL'S HIGH SCHOOL, BOSTON, MASS.

I read the other day a mournful confession by a well-known professor of humanity, that his teaching does not issue in true culture for his students, whose work in his department is perfunctory and without relation to interests felt by them to be important. The means which this professor employs for the attainment of culture is the study of Latin. His case is far from being a solitary one. Whether in the form of personal avowals, like that of Prof. Ramsay, or in more general lamentations over the materialism of the age, declarations of failure to enlist the sympathy of youth with pure culture for its own sake have become within a few years very frequent.

To moralize at large on this topic is easy, and not altogether profitable. But I would suggest, as pertinent to the subject of this discussion, that the very idea of a pure formal culture, or a discipline to be kept aloof from considerations of utility, is a recent growth in the academic consciousness, and that not so much have the times deteriorated, or the youth become intellectually indifferent, as new standards have come to be applied and new means adopted. A university where nothing useful should be taught would be the flat opposite of the university of the past. The conception is new and revolutionary. Judged by Socratic or Baconian maxims, it is equally heretical. It opposes the Greek spirit as much as it does the Roman. It is neither ancient nor modern. It is merely academic.

I have ventured to say that we adopt new means for the attainment of culture. In the bare fact that we continue to give the old means—the ancient languages—the place of honor in our programs, we seem to preserve the historical continuity of the higher education and to be linked safely to the past. We deceive ourselves. The inner, vital connection with the past is broken. The essence of our linguistic study, its soul, motive and inspiration, all but the mere outer fact,—is changed. The ancient languages were once utilities, necessities; now they are means of pure discipline. Once they were learned to be used: or, at least, Latin was; and when learned were used. Now they have ceased to be used, and the natural consequence is, they cannot be learned. Innovators for evil in modern education, are the inventors of *formale Bildung* as the aim and end of humanistic studies.

Latin used to be learned in the days when it was spoken,—in the days when, as in the last years of the 16th century, nearly seventy per cent of European books were written in Latin. Latin has ceased to be learned,—not the grammar of course, but the language,—in the days when it is no longer spoken, heard or written.

No language survives the day when it is no longer heard. And to come to the question of the moment, I would offer the thesis, that the elements of language knowledge and of language study are four, namely, hearing and speaking, reading and writing; and that these four elements are bound together by a principle of unity so closely that, while they may be separated in thought, and, as physical acts, are not mingled in time, they are not separated in nature, and must not be in a pedagogy that aims at attainment rather than at formal culture. First is the spoken word, caught by the ear of the pupil and reproduced by his organs; second is the form of the word to his eye,—its spelling. The beginner in an ancient language is set to learning paradigms. This procedure developes the grammatical consciousness, but not the language feeling, the *Sprachgefühl*, or the unconscious habit and tendency to put words together aright. The modern language teacher will aim directly at his goal, and give words, not in columns, but in phrases, and will insist on being imitated. In a course of preparation for college a youth will have heard myriads of repetitions of words in all possible natural collocations, and will have uttered them as often and as freely as the opportunity allows. He will also have added to this abundant hearing and speaking a résumé of grammar, read and discussed in the foreign tongue.

I do not hesitate to say that an applicant for admission to college should be able to speak French or German ; to speak within a limited range of course, but with confidence, seriousness and dignity. The range of speaking possible to compass in a school course is determined by the physical conditions of teaching. One voice reaches many ears, but many voices cannot simultaneously converge in articulate speech upon one listener. But much can be done in training the organs to fluent utterance. Much *is* done : one needs only to visit certain class rooms to see it done. But there is practically no limit to the amount of hearing that a student may enjoy, no limit to the training of the ear to delicate perception of sounds,—a training invaluable for other purposes also as well as for the recognition of the meaning of French and German speech. This culture of the ear and the voice reacts on the habit of speech in the native tongue. Surely, a course of language study should not fail to impart some degree of voice-culture. Is there a better corrective of slovenly habits of speaking than the discipline of carefully attending to new sounds, and of trying with persistent effort to reproduce these sounds ?

A college examination in French or German should include such an exercise as the following. The candidates should listen to a short discourse in the language in question, and then should write in the same language an abstract of the content of this discourse. I know not how else so complete a proof of command of the language can be given under the necessary conditions of an examination of many candidates in mass. Such an examination would show, with regard to candidates, the following elements of training, all of prime importance. Can they give absolutely unbroken attention for a few minutes ? Can they catch the foreign sounds ? Can they give back in the correct forms the essence of what they have just received ?

To a certain extent ability to read a foreign language in silence may be acquired without the habit of speaking it or hearing it spoken. But I submit the following as a common experience of those who read in this manner : Words that do not occur frequently are not learned at all, and must be looked up each time. To find the meaning of a word in a dictionary becomes with most readers a mechanical act, almost an automatic one. We language teachers have practiced it so long that we have ceased to hope for promotion from the dictionary stage of knowledge, but expect each time to dictionary our way through the familiar old passages of the classics when they come round with the revolving year. As civilized man, with a watch in his pocket, can no longer tell the hour by the sun, so we, with our bilingual dictionaries at our elbow, can no longer learn languages. You put your new found words into columns, with their meanings against them, and by dint of repetition you commit this list to memory. Yet you directly find yourself reading the translation of one of those words from the dictionary, and wake as from a dream as something reminds you that with that little matter you ought to be already familiar. It would almost seem that the greater or less range of vocabulary that one has mastered remains a fixed quantity, incapable of enlargement. The alliance of the ear and the tongue with the eye and the dumb memory will alone break the spell of the dictionary stupor. If you have a French or German comrade, and can bandy your new words to and fro with him a little, and get them into other relations and apply them to things already well known, you fairly clinch them as your own and will easily recognize and use them on occasion. The essential condition of learning a word of a foreign language for practical purposes,—that is, so that you can both recognize it when you hear it, and summon it to your own lips when you want it,—is that you hear and speak it, not as an isolated vocable, as it occurs in a column, but in the phrases of actual speech, with its grammatical dependencies and its modifiers, with the company around it which it naturally keeps, in the society it frequents and in which it will be found again.

But not merely for acquiring the vocabulary of a foreign language is the habit of ready speech of fundamental importance. No teacher can effectually inculcate by precept, and no book can inculcate at all, the peculiarities of a foreign language in respect, for example, to the order of words and the many turns of expression that give the language its individuality. A set of rules adequate to determine every point in the use of French pronouns is conceivable, but would be useless as a reliance in learning the pronouns; and a pupil may be very severely disciplined over such a subject without any gain whatever, except the fatuous one of the discipline. No pupil knows his pronouns until the right choice and grouping of them comes without thought, purely as a matter of habit, just as his English does. And this comes only by infinite repetition of correct French, and from hearing and seeing correct French year in and year out.

It is wrong to treat with contempt a speaking knowledge of a foreign language. It has been possible to hear this accomplishment disparaged for such reasons as that it is difficult; that it is easy; that it is useful; that it is useless; that valets and couriers possess it; that Frenchmen chatter and gesticulate.

Difficult let us allow it to be in a measure; but, let us say, with a difficulty peculiarly and pleasantly superable, every step in the conquest of which is rewarded by the consciousness of serviceable gain. Easy let us grant it, too, when pursued directly and by sensible methods, though not when sought from mute books.

As to this matter of hard and easy, strange ideas have been expressed by educators, oftenest perhaps in connection with the Greek question. Everywhere else in human affairs an easy way of doing the thing to be done is desired and sought. A difficulty is an obstacle, something noxious to be cleared away. A benefactor of the race is he who invents some easier way of reaching any necessary end. It was inevitable, however, that, as soon as the ancient languages ceased to seem supremely desirable as acquisitions, as they once were, and had to be defended as apparatus for intellectual gymnastics, the study of these languages should be removed from the operation of the natural "law of the least effort," and should be kept rigorously severe, exacting and hard. I must beg leave to make a little digression here, to remark that, as one who stands in the old ways and finds his Homer and Euripides the more enjoyable the more easily he reads them, I protest against this way of speaking and thinking with regard even to the ancient languages. But this perverse notion that a study is wholesome in proportion as it is hard has spread from the ancient languages to other departments. I heard, for example, of a teacher who considered book-keeping easy to learn if you merely taught how to keep books; but if you taught it "scientifically," as it ought to be taught, it was hard.

Such an opinion as this must not be suffered to invade modern language teaching, and become public sentiment there. I suppose that a teacher who should fear lest French or German be too easy to occupy fruitfully the attention of boys would suggest that these also be taught scientifically. We know what this means in the teaching of language. It is that the languages be taught philologically; and this, if the languages are to be acquired, is just the wrong way. The question is, what is the shortest and easiest road to the possession of the language. This road is certainly not through philology. In fact, the road through philology does not lead in that direction at all. The foreign language is a valuable acquisition. This is the simple and elemental fact in the matter. Let the language be imported without suffering heavy tariff exactions of discipline in getting through the custom house.

As a secondary teacher, I am contemplating solely, in what I have just said, the secondary, or preparatory range of teaching. For it seems to me anomalous, or to use the exact word, preposterous, that youth should be expected to read Homer and Herodotus, Virgil and Cicero, in their preparation, and then go to college to begin their French and German. Clemens Nohl, one of the host of German writers now at work reconstructing the gymnasial course, urges that French begin with the pupil's entrance into the secondary school and go with him to its end. Latin and Greek begin later and get much less time than the modern language. A pupil going to college should possess, ready for use, a foreign modern language; and as readiness for use comes only by use, he should be held to give evidence that he has used this language effectually in getting an acquaintance with its literature; that is, not with its classic literature, but with such portions as youths of from seventeen to nineteen can best profit by: for, fortunately, in French and German it is not the Gallic War or nothing, but the immense field offers every variety, and if the teacher crowds his pupils through books too hard, too dry or too dull, or in any way unsuited to his learners, it is his own fault. The college professor of French should receive students competent to read and understand the language very well, and to write and speak it, if not well, at least confidently, and without any sense that they are doing a ludicrous thing when they do their best. Then this professor can go on with really advanced matters concerning the history of the language, the form and significance of its literature at its various stages, and whatever else belongs to French scholarship.

It is to be regretted that the words *utility* and *useful* are coming to denote, in pedagogic parlance, something evil. So far as they are employed with this connotation by the directors of the higher education, they mark a separation that has taken place between the aims of the higher education and the national consciousness,—a separation not liable to proceed very far in this country, it is true, but, so far as it does become realized, sure to become an obstacle to the development of an independent and, in the best sense, popular educational system. Probably the bad repute, among our scholars, of *utility* as a motive in education is a reflection from the controversy going on in Germany about the modern, pedagogic humanism. From the mêlée we catch the harsh epithets "*banausisch*," "*philister*" and "*brod-studien*," and as it is largely in the interests of classical pursuits that we take note of what the Germans are doing, it is natural that we import some of the nomenclature of these pursuits and allow ourselves to be a little imposed upon by their battle-cries. An educator should be able to conceive utility without this distortion of its sense,—a distortion purely technical,—that is, private to his special art,—and allow it to import to his understanding its good old English meaning, which is honorable and wholesome, as is also its meaning throughout Greek and Latin literature.

Perhaps my predilection for antiquity is unduly strong. As an old teacher of the classics, I may have become too much wedded to ancient ideas and too much inclined to linger in the rear of the march of improvement, and to distrust this recent tendency to isolate the disciplinary value of a study from its value as leading to a possession, an accomplishment. The attempt to isolate the formal discipline from the useful result and to give all the honor to the former brings it to pass that the studies which least issue in acquired skill, ready for use, come to be deemed the most abounding in disciplinary value, and then to be esteemed, not merely for their disciplinary value, but actually for their lack of utility. This is a wholly deplorable twist that has come into educational theorizing. It causes needless difficulty to be put in the way of acquisition, and breeds a sort of aristocracy of studies which operates as a rigid principle of resistance to change, and prevents education from coming into vital relation with genuine popular needs. The truth would seem to be, that, aiming intelligently at a useful end, we may trust the discipline to care for itself. The absence of a useful end as our goal will rather interfere with the discipline than favor its opportunity; just as it is better to go fishing or botanizing, if you want exercise, than it is to walk so many miles in such a time.

There is as much linguistic discipline in modern language study as a youth can profit by. I remember Prof. Goodwin once recommended the study of Greek because a certain English phrase could, with the Greek moods and tenses, be expressed in nine different ways. But I submit that a youth who has conquered, *and can use*,—who not merely understands, but can reproduce, as need occurs,—the French and German moods and tenses, has had all the opportunity for discipline than can avail him anything, and gets really no effectual linguistic training in addition to that when he adds the syntax of the verbs in the ancient languages. These languages differ more from the English than French and German do; but French and German differ enough for purposes of formal culture. The ancient languages should be learned for the sake of having them at command. The task will be arduous, perhaps too arduous; though Prof. Harper seems to be showing how it may be achieved. And the modern languages should also be learned for the sake of possessing them; and every modern language teacher should keep this end fully in view, leaving the discipline to take care of itself, and strenuously resisting the influence of those new-fashioned ancient language teachers who make great account of formal culture, as if this were their goal and they recognized none beyond. If the study of a language does not lead to a practical command of the language, that study fails. It has secured some discipline: but so has the study that has led to an acquisition; and the discipline in the latter case was a better discipline.

Bogumil Goltz sneers at those modern peoples, as being degenerate and feeble, characterless and vain, who have suffered the proud and resonant *ego* of their progenitors to decline into forms like *io* and *je*. He sneers no less, by the way, at that other modern race which uses the lazy and drawling, dipthongal *I*, when it might have for its pronoun something resembling the perfect word *ich*. In the same eccentric vein a person not understanding French speech calls it chatter; or calls it so when it is spoken in school, especially by girls. And Gustav Körting, who propounds the amazing thesis that girls should take their modern languages in the same way and for the same purpose that boys in gymnasia take their ancient ones, fortifies his argument in the true gymnasial manner by calling French conversation "*parlieren*." The curious effect that French speech has upon ears long used to school boys' Latin is a phenomenon in education that deserves study. A language that has a multitude of silent letters, that elides innumerable vowels, that actually links words together, that has every element of nice adaptation to polite conversation, and, worst of all, can be used every day for many pleasant and profitable purposes,—such a language, spoken with some fluency in animated dialogue, seems to evoke that store of unhandsome epithets which the genuine classicist keeps ready for self-defence.

Convinced of the necessity of hearing and speaking any language that is to be really learned, some teachers here and there have tried to have Latin spoken in their schools, as a feature of their method of teaching the ancient language. This procedure was recommended fifteen years ago by Philip Gilbert Hamerton, who makes many wise suggestions concerning the teaching of modern languages. "The one thing I regret about Latin," says Hamerton, "is that we have ceased to speak it. The natural method, and by far the most rapid and sure method, of learning a language, is to begin by acquiring words in order to use them to ask for what we want; after that we acquire other words for narration and the expression of our sentiments. By far the shortest way to learn to read a language is to begin by speaking it. The colloquial tongue is the basis of the literary tongue. This is so true, that with all the pains and trouble you give to the Latin education of your pupils, you cannot teach them as much Latin, for reading only, in the course of ten years, as a living foreigner will give them of his own language in ten months. I seriously believe that if your object is to make your boys read Latin easily, you begin at the wrong end. It is deplorable that the learned should ever have allowed Latin to become a dead language, since in permitting this they have enormously increased the difficulty of acquiring it, even for the purposes of scholarship."

Not to discuss Mr. Hamerton's astonishing attribution of power to "the learned" in the matter of keeping a language alive, I would submit that classical Latin cannot be spoken. The Latin forms are rigid, and modern thought cannot adopt them. No age can learn the language of another age well enough to speak it, for the reason that it cannot begin with speaking, but must begin with grammar and literature, and can thereafter never rid itself of the grammatical consciousness and respect for literary models,—a condition absolutely destructive of real speaking, however compatible it may be with the construction of certain faultless sentences. It will be futile to try to talk Latin. A churchman may talk his private sort of modified Latin. But no modern man can express modern ideas in the language of Cicero. It will always remain a task of immense difficulty to learn classic Latin so as to read it fluently, because it is impossible to speak it at all. And it is possible to learn French and German so as to read them in silence with ease, because they can be vocalized, and the familiarity of the ear co-operates with the familiarity of the eye, making that perfect and natural whole of lingual habitude, which pedagogy now recognizes as the indispensable condition of learning a language.

It will of course be understood that I do not mean to suggest that it will be possible in a school so to learn a language as to speak it perfectly. I only mean to urge that our pupils should in speaking their modern language come as near to perfection as they come in doing their other school tasks. The trouble is that any French man or woman that visits our class is a critic competent to judge our success, and to detect the slightest divergence from perfect accuracy. No similar critic of anything else we ever do comes within our precints. No supervisor of our Latin or geometry is so remorseless as the non-scholastic native, who remarks our accents, our slips in gender, our deviations from rectitude of every sort, and who is always competent to set us right, and put us in the most undignified posture of needy recipients of aid. Hence French or German speaking always comes to be regarded as an undesirable school exercise. The more the school sequesters itself from homely and useful interests, the more it will tend to cultivate its dignity and affect "scholarship," meaning by *scholarship*, without further qualification, that which tradition assigns to the schools as their special function, the learning of the ancient languages.

But a few months ago occurred the centennial of the first delivery of a lecture, I think in the theological faculty of a German university, in the German language. For many years it has been necessary for him who would study any subject whatever abroad to be able to hear a number of languages as great as that of the peoples he would visit. There is no longer a *lingua franca*, a *commune vinculum* of speech, among scholars. The Sorbonne speaks French, Berlin speaks German, Rome speaks Italian, the two Cambridges speak English. The changed facts in the world must be met by change of aims and methods in the schools. Very clearly, a greatly increased opportunity for the modern languages must be provided. Yet the proportion of the lingual element in our programs ought not, by any principles of sound pedagogy, to be enlarged. There is, of course, only one way out of this dilemma. The tendency of German discussion of the subject is unmistakably towards giving the modern languages the preference by assigning them the earlier beginning, and giving them the greater amount of time. When this solution of the difficulty can be acquiesced in, I believe it will be possible, in the preparatory schools, to accomplish, in the modern languages, such results as the following.

And I will keep in mind such preparatory schools as abound throughout the country, and which in Massachusetts are established by law in all but the smallest towns. I mean the public *high school* with its course of four years, and with its double aim of fitting for college and for business. I do not have in view the college preparatory school proper, with its course of six years,—a course organized with the special aim of giving Latin its grand opportunity. I am quite unwilling to assume as the popular school of the future an institution that sets apart the boy of ten or twelve as a candidate for collegiate education. Our numerous colleges should be made and kept very open for our multitudes of high school youth. Whatever ambitions may become realized in the direction of an upper education for a social *élite*,—an education toying with the inutilities and graces of formal culture,—the question what is to be the education of the governing classes will still remain to be settled, and the problem how to bring the popular schools into close and fruitful relation with the popular colleges will have to be discussed the same as ever. The New England high school of thirty years ago has become the high school of the United States. It is a very serious fact in our national life. It is useless to theorize it into something different in nature. It is no man's device. It has come into being as a part of our popular development. If in the Boston Latin School of to-day the names of the descendants of its earlier generations of pupils are conspicuously wanting, that school has nevertheless maintained unbroken the continuity of its relation to the public welfare. The ancient Latin School educated the directing class: the present Latin School still continues to educate the governing class.

In our high schools, therefore, I am sure that courses in two modern languages could be brought to good issue without severe strain upon the pupils' minds, while at the same time the other elements of a well-rounded secondary education should receive their due attention. I say, two modern languages; but this should be understood with a limitation. It will not be feasible to carry along two languages simultaneously from the beginning to the end of the course. Only in one language will it be wise to let the learner make his first essays at once. If he is to study an ancient language, it will not be well to take a second modern one at any period of the course. In the language that begins on the pupils' admission to the secondary school, and goes on uninterruptedly to the end of the four years, all the results that I have indicated earlier in this paper could certainly be achieved. The youth who has been kept persistently at French or German during the four years from his 14th or 15th to his 18th or 19th year, and who has been taught according to the plainest principles of pedagogy applicable when acquisition, rather than discipline, is the end in view, should be able to read the language, to hear it unfailingly, and to write and speak it well, within his range. And such attainment the colleges can have in their applicants by the simple act of insisting on having it, and by agreeing to consider as unripe, and therefore inadmissible, all who do not possess the duly announced qualifications.

If a second modern language is taken by the candidate in his preparatory course, it will naturally be begun about midway of the four years, so that two years may remain for its study. The method to be pursued with this second language will be the same as that followed with the other: it will begin with the training of the ear and the tongue, and proceed to reading. But now the learner is more mature, his experience with one foreign language avails him, and his progress will be more rapid. Except that his reading will be much less, approximately the same proficiency will be expected of him in this language as in the prior one.

A secondary teacher has a right to consider his responsibility as ended when a college has examined and admitted his boys. The college faculty that has held an examination and admitted a freshman class through its ordeal has no right thereafter, on finding defective preparation, to refer it, as a matter of complaint, to the preparatory school. An examination is a receipt in full of all demands. If it is less than this, what is it?

The fact is, an examination sets the standard; and to get boys through the examination becomes the aim of the school. If candidates are admitted year after year, this standard becomes known, and comes to be adopted as the school standard. Devise therefore such examinations as shall infallibly detect unripeness, and then simply exclude the unripe. Secondary teachers will find great support in such a simple plan of *Thorough*. The only consummation better than this elevation of examinations to a higher plane is the complete abolition of them, and the imposition upon the preparatory schools of a responsibility different from that which they now have to bear. The responsibility for getting pupils through a college examination is a low, depressing one. Give the schools a moral responsibility also; let them actually have to equip their pupils with good habits and aspirations, with serviceable acquisitions and accomplishments; and let them always have to fear, during the first collegiate year, the sending back of any incompetent or indolent student; and let the students themselves always fear the same disgrace.

These suggestions as to the aim of modern language teaching and the spirit in which such teaching should be carried on, are not offered without the full consciousness that they will seem utopian to college instructors generally, who will ask incredulously, where are to be found for the secondary schools the teachers competent to teach a speaking knowledge of French or German. The query is very pertinent, but it is easily answered.

Hitherto the great obstacle to the production of a supply of trained modern language teachers has been the tendency to copy, in modern language teaching, the methods of ancient language teaching, and to ask of modern language teachers the qualifications of ancient language teachers. That is, it has been the custom in school and college to consider as teaching of French or German the putting of a pupil through some portion of a grammar and the translating into English of certain pages of French or German books. Such a procedure results of course in nothing, although this nothing counts presumably as one of the "arts" of which the graduate becomes bachelor.

But a great pedagogic revolution has been taking place within very recent years. It is dawning clearly upon the scholastic consciousness that teaching is an art, requiring patient and laborious training, just as much as watch-making or dentistry. It is even coming to be acknowledged that teaching is an art, founded on skill, no less in college halls and high school class-rooms than in primary schools. The old conception of a learned profession, whose foundation is scholarship, lingers still about the secondary school, already somewhat ghost-like and unsubstantial. The new conception of a craft not based on erudition at all,—though related to it in many friendly ways,—but essentially depending on skill, is taking possession of the educational field. Thus we have seen arise, almost within a decade, the multitude of summer schools, all growing out of this recent irresistible bent of the young teachers to perfect themselves in their art. Thus we have seen that obsolescent term, *pedagogy*, spring anew into life, to express a revival of educational energy, which, still within a decade, has produced a wonderful crop of literature, with the very catalogues of which no one man can keep himself familiar. In education anything is now possible that allies itself with genuine human desires.

Skepticism as to the possibility of having a body of teachers trained to teach French and German is wholly out of place. I am almost ready to say that the supply of such teachers at the present moment is greater than the demand for them. From the natural inner impulse to do a useful thing gracefully and well, and from the inner conviction that the fruitful method of language teaching is that which begins with speaking the language, not a few teachers have entered upon the course of training that leads to this accomplishment, and have begun to carry their ideas into practice. The bias in this direction among teachers is stronger than the disposition to favor this inclination among their supervisors and directors: it is stronger among the secondary teachers than it is among the college men. The time is ripe for utilizing this already well grown force of conviction and faith, and this already acquired power. A class of teachers is needed thoroughly devoted to the attainment of skill. A well-trained language teacher will conduct each lesson as an expert. Such a teacher will make no display of scholarship, but will work as an artist, adjusting each forward step to all previous acquirement, and making each day's increment of gain so memorable that it shall not slip at once into oblivion, but remain as a permanent possession.

THE FUNCTIONS OF THE HIGH SCHOOL.[*]

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The only perfect defense of an existing institution is doubtless a harmony between *a priori* and *a posteriori* considerations, between the logical conclusion that it *ought to be* and the actual fact that it *is*. To all sane minds it is evident that government of some sort is a logical necessity; and when this conclusion is found to be supported by the fact that some form of government is co-eval and continuous with the human race, we have a perfect defense of the police system of nations and states. But in the case of institutions of long standing and wide approval by the wise and good, there is a shorter route to a satisfactory defense; for we may assume that what *has been*, under the conditions stated, is also the thing that *ought to be*, it being wholly improbable, if not indeed impossible, that an evil thing should continue to find favor in in the sight of successive generations of the wisest and best of the race. The best proof of the beneficence of the law of the division of labor is the simple fact that this law is co-eval with human industry, and that its applications have multiplied with the progress of civilization. The best defense of the reaper, the sewing machine, the steam engine, the telegraph, and the telephone, is the fact that each has come in the fullness of time, and by a sort of necessary evolution, as a wanting term in a progressive series. Whether railroads should be introduced into China, or Turkey, is not a question of political economy, but of history. The simple fact that all progressive nations build railroads is a sufficient reason why a nation that desires to live and prosper should build railroads. The easiest as well as the surest defense of Christianity is not in moral philosophy but in godly lives.

I have always felt inclined to defend the high school on historical grounds rather than on *a priori* principles. I count the high school, along with the newspaper, the railroad, the telegraph, the reaper, and the telephone, not only as concomitants, but as necessary agents of national life and progress. Each came in response to a real need, and each will endure as long as the need endures.

Pursuing, then, this line of argument for the present, we are to recollect th at the English public school, the German gymnasium and real school, the French lycée and communal college, the New England academy, and the modern high school, are all institutions of one and the same general type, and fulfill the same general function. It is a fact of no slight significance that this institution responds to the intellectual needs and aspirations of three such races as the Anglo-Saxon, the Teutonic, and the Latin, the three dominant races of the world. Nor is the period of time through which this kind of school has lived and flourished void of significance. Eton was founded in the fifteenth century (1440) and Harrow in the sixteenth (1571); and early in the seventeenth century, Comenius, the world's great educational statesman, incorporated this element into his scheme of universal instruction. It is thus seen that this institution has had a trial over a vast extent of territory, and through three centuries of history, and that in point of vigor and renown its last days are its best days. This I hold to be the most conclusive proof of its utility and necessity, and so of its right to live and flourish.

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The incorporation of the high school into the system of public instruction of Michigan is a typical illustration of this part of my argument. It was once my privilege to know John D. Pierce, reverently known as "Father Pierce," the first Superintendent of Public Instruction of Michigan, and to learn from his lips the story of the formation of the school system of this State. Cousin, sent by the French government as an expert to examine the school system of Prussia, made his report in 1831. This report was translated by Sarah Austin in 1834, and in 1835 it fell into the hands of Mr. Pierce, who had recently graduated from Brown University and had come to Michigan as a home missionary in the service of the Congregational Church. Michigan was still a territory, without any system of public instruction; and after reading the book Mr. Pierce's enthusiasm was so excited by Cousin's description of the state of public instruction in Prussia that he said to himself, why may not Michigan start with the system which has so evidently given to Germany her civil and intellectual grandeur? The very next year Mr. Pierce became Superintendent of Public Instruction of this State and so had the moulding of our school system; and the idea of this system he borrowed from Germany, through the French philosopher Cousin. The essential elements of the Prussian system are the university as the great fountain-head; innumerable elementary schools for the education of the masses in the essentials of learning; and between these two extremes, forming a ladder from the lower to the higher, a smaller number of middle schools, the type of which is the modern high school. This University, within whose walls we are now assembled, and yonder high school, typical of the hundreds which adorn and bless the cities and villages of this commonwealth, are, through the agencies I have noted, the offspring of Comenius's fertile brain. The pioneers of our civilization transplanted these historic institutions into the soil of the new world; and through historic faith in their sovereign necessity and value, our manifest duty is to foster, to adapt, and to develop.

It is not so much to make an *a priori* argument in favor of the high school as to call attention to the peculiar services it renders, that I now turn to mention some of the human needs that find their satisfaction in the opportunities which it presents.

The stress of circumstances compels us to be instruments for bread-earning,—for the greater part of our waking hours we must work at the tread-mill of some industry or profession; but within us all there is an instinctive feeling that our right to be men is superior to our duty to be instruments. While I must lead the life of an artisan and must regard myself as a passive piece of mechanism in the organized industry of the world, I at the same moment aspire to participate consciously in the higher life of the race. "We must sometimes fight," says Aristotle, "but all to the end that we may have peace; and we must also labor, but to the end that we may find rest." I interpret this to mean that the human needs are superior to the instrumental or professional; and that while we must be machines we ought at the same time to be men. The ox when released from the yoke will seek the peaceful herd, and the plowman, if loyal to native instincts, will seek communion with the nobler spirits of his race, when *his* hour of release from heavy toil has come. But alas! To how few of the sons of toil has this intellectual emancipation ever come! Early and continuous servitude to toil, unrelieved by humanizing studies, cramps and deforms the spiritual body, and makes of the human personality a *thing*. A plowman was once asked what occupied his thoughts as he pursued his daily round of toil. "I keep thinking how beautiful the furrow turns over," was his reply! Contrast this man with Cincinnatus at his plow, and what I mean by intellectual emancipation will become evident. Public education should have no lower aim than to endow every son of toil with a kingly spirit, to raise every son and daughter of earth into spiritual companionship with the elect of the race. In the purpose of Heaven it is no man's destiny to be the companion of clods. Or, if destined to lead a life of hard and honorable toil, it is his inalienable privilege to refresh his spirit in the delights of the intellectual life. Intellectual freedom is a universal good, like air, water and light, and it should be distributed as generously and as inexpensively as they. Now, assuming that public education should have this higher aim, by what agency can it be given so that in any adequate sense it shall become universal, so that it may come as a precious boon to the hearts and homes of the whole people? This cannot be done through the primary or elementary schools whose mission is to teach the instrumental arts of learning. Intellectual freedom, intellectual culture, is a matter of age as well as of opportnnity. In other terms, for this high purpose, opportunity must wait for age. The studies that liberalize the mind will be found to lie in three main lines. Recollecting that the purpose of a liberal education is to permit the pupil to enter consciously into the life of the race,we discover that its fundamental aim must be to acquaint the learner with the dwelling-place of the human race. This points primarily to geography, and then to the physical and natural sciences, such as geology, chemistry, physics, botany, and zoology. The second aim of a liberal education should be to introduce the pupil to a knowledge of the notable things done by the race; and this involves the study of history. Finally the pupil must be allowed to share in the thoughts of the very elect of the human race; and so he must be initiated into the humanities proper, the study of language and literature. Now this grade of study is the lowest that befits that nobler life which is the prerogative of every human being; and the consensus of enlightened opinion for three centuries past has insisted on the maintenance of what has been very appropriately called the *people's college*, for this express purpose. In this country this is the historic and the logical mission of the public high school.

So vital and intimate is the alliance between the high school and the university that it is impossible to think or speak of the one without at the same time thinking or speaking of the other; and this intimate relation is further shown by the fact that the high school develops its power only under the patronage of a strong university. Historically, universities precede high schools and create a demand for them; and, in turn, high schools are the natural and necessary supports of universities. University culture is diffused, not by radiation, but by convection. and the agents of this distribution are high schools. For example, there are thirty high schools tributary to the University of Michigan. From these thirty centers there come up to this institution yearly the choicest youth of this commonwealth to receive the knowledge, training and culture which the University offers; and when the process of instruction is completed they return to society to diffuse about them the wholesome spirit of liberal studies.

But the high schools become the distributing points of university culture through another agency that is perhaps still more effective than the one just noted. Who are fitted by scholarship, training, and culture to become the teachers of high schools? Only those who have pursued a collegiate or a university course of study. In saying this I assume that the scholarship of the teacher should be considerably in advance of that which his pupils are to attain. Any high school that draws its teachers from its own graduates, or from the graduates of other secondary schools, is doomed to decadence, near or remote. And even more than this,—any State in which the teachers of the higher schools are drawn very largely from institutions of the secondary grade, is doomed to intellectual mediocrity. For the purpose of pressing a people forward to higher and higher planes of intellectual excellence, there must be an exalted standard of scholarship and training held steadily in view of parents, pupils, and teachers. This part of my argument, then, may be summed up by saying that the high schools of a State are the great distributing centers for the downward diffusion of scholarship and culture.

In Michigan, the legal status of the high school was definitely and finally fixed by the decision of Judge Cooley, in the celebrated case of Stuart vs. The Board of Education of Kalamazoo. The claim set up by Mr. Stuart was that the high school existed in fact but not in law, and that, consequently, no funds could be legally collected by general tax for its support. The decision of Judge Cooley was to the effect that in Michigan the high school is a logical necessity. The constitution ordains that the primary or common school, and the university, shall be maintained at public cost, and this requirement carries with it the implication that some means shall be provided whereby pupils may pass from the base of the school system to its summit. This medium of transition is the high school, and so the support of this institution by public tax is legal. By this single act of judicial wisdom, Judge Cooley secured to this commonwealth forever the maintenance of an institution which is vitally related to the prosperity and glory of the state.

Objections to the support of institutions for higher education at public cost proceed from low views of the functions of state government. In its legislation the state should aim at something higher than mere existence; it should aim at prosperity and even at glory. The real greatness of a state does not consist in its mines and forests and fertile lands, but in the intelligence and goodness of the men and women who are its citizens; and the institutions of the state should be of a kind and grade to produce the largest possible number of men and women eminent in all the walks of life, civil, religious, industrial, and literary. In the countries beyond the sea almost the only thing seen of Michigan is the dome of this University; and there is nothing within our borders in which a citizen may feel a purer and juster pride. Now what this University is to the State at large, the high school is to its own village or city, "the consequence of all that it is, and the source of all that it is destined to be."

L' ACADÉMIE DES ÉTATS-UNIS DE L' AMÉRIQUE.

DR. HERBERT B. ADAMS, OF JOHNS HOPKINS UNIVERSITY.

A very remarkable attempt was made in the latter part of the eighteenth century to establish the higher education in this country upon a grand scale. It was an attempt growing out of the French alliance with the United States, to plant in Richmond, the new capital of Virginia, a kind of French Academy of the Arts and Sciences, with branch academies in Baltimore, Philadelphia and New York. The institution was to be at once national and international. It was to be affiliated with the royal societies of London, Paris, Bruxelles, and with other learned bodies in Europe. It was to be composed of a president, vice-president, six counsellors, a treasurer-general, a secretary and a recorder, an agent for taking European subscriptions, French professors, masters, artists-in-chief attached to the Academy, twenty-five resident and one hundred and seventy-five non-resident associates, selected from the best talent of the Old World and of the New.

The Academy proposed to publish yearly, from its own press in Paris, an Almanac, announcing to the academic world not only the officers and students of the Richmond institution, with their distinguished associates, but also the work projected by the Academy from year to year. Such work when completed was to be published in the Memoirs of the Academy and distributed to the learned societies of Europe and to the associates and patrons of the institution. The Academy was to show its active zeal for science by communicating to France and other European countries a knowledge of the natural products of North America. The museums and cabinets of the Old World were to be enriched by specimens of the flora and fauna of a country as yet undiscovered by men of science. Experts of every class were to be sent out from Paris to the new Academy, where they were to teach American youth and at the same time serve on scientific commissions for governments, corporations and stock companies. These professors were to pay to the Academy, for its economic support, one-half of all receipts for instruction and commission-work. Special stress was laid upon the importance of introducing into America French mineralogists and mining engineers. If this latter idea had been practically carried out, the mineral resources of the United States would have been exploited in the interest of European capital.

The projector of this brilliant scheme was the Chevalier Quesnay de Beaurepaire, grandson of the famous French philosopher and economist, Dr. Quesnay, who was the court physician of Louis XV. Chevalier Quesnay, the grandson, was one of those enthusiastic Frenchmen who, like La Fayette, came over to this country to aid in the war of the Revolution. Led on, he says in his Memoir,* by the hope of achieving military distinction, Quesnay served as a captain in Virginia during the years 1777–78. A long and severe illness compelled him to give up his military ambition. Having occasion to travel through the country, he conceived the idea of improving it by the introduction of French culture and the fine arts. He saw a good opportunity of multiplying the relations between France and America, or, as he naively says, "de la lier avec ma patrie par de nouveaux motifs de reconnaisance, de conformité dans les gouts, & de communication plus intime entre les Individus des deux Nations."

The Chevalier says that the first idea of founding an Academy in America was suggested to him in 1778 by Mr. John Page, of Rosewell, the lieutenant-governor of Virginia, who urged him to procure professors from Europe, promising to secure their appointment and make Quesnay the president of the Academy. The ambitious Frenchman appears to have made diligent propaganda throughout Virginia and, indeed, throughout the country, in the interest of his novel academic idea. He even succeeded in raising by subscription the sum of sixty thousand francs, a fact which indicates that the scheme was seriously entertained. There is a published list of the original subscribers in Virginia, embracing nearly one hundred names.

The following "Liste des Premiers Souscripteurs en Virginie, Année 1786," will have historical interest, for it represents the first contributors to University education at the South: "Messieurs B. Adams, R. Arm-

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*Mémoire, Statuts et Prospectus concernant l'Académie des Sciences et Beaux-Arts des États-Unis de l' Amérique, établie à Richemond, capitale de la Virginie; présentés à Leurs Majestés, et à la Famille Royale, par le Chevalier Quesnay de Beaurepaire. A Paris, de l' Imprimerie de Cailleau, Imprimeur de l' Académie de Richemond, rue Gallande, No. 64, 1788. (118 pp. 12 mo.)

stead, Moses Austin, Henry Banks, Chiswell Barett, John Barett, Smith Bleakey [Blakey ?], Robert Boling, William Booker, Richard Bowler, Robert Boyd, James Bronsley [Brownley ?], John Burton, William Burton, Archibald Cary, Cohen & Isaac, William Coulter, Samuel Coush [Couch ?], Reuben Coutls [Cutts ?], Samuel McCraw, Thomas McCrusey, Francis Dandridge, William Davis, Thomas M. Deane, Henry Dixon, Johns Dixon, William Duval, Serafina Formicula, William Foushée, Gabriel Galt, A. Geoghegen, John Gibson, Erasmus Gill, H. Giroude, Francis Goode, Robert Goode, Thomas Gordon, Francis Graves, Robert Greenhow, John Gunn, John Harvie, William Heslet, Gilbert Hay, Custis Haynes, James Hays, Joseph Higbee, David Humphreys, Daniel Hylton, Francis James, Richard Jernon, John McKeand, John Ker, David Lambert, Robert Lauglin, Benjamin Lewis, William Lewis, Abraham Lott, John McLurg, William Lynn, Sampson Mathews, John May, William Mayo, Dabney Miller, Robert Mitchel, A. Montgomery, Richard Morris, Mme. Susanna Nevens, William Pennoch, George Pickett, Barnet Price, John Prior, N. Raguet, Thomas Randolph, T. M. Randolph, Henry Randolph, Thomas Richard, A. McRobert, Jesse Roper, Thomas Rosses, John Stewart, John Stocdelt [Stockdell ?], Tenner [Turner?] Southall, R. Southgates, Thomas Taab, Stephen Tankard, Peter Tinsley, Samuel Trower, Daniel Trunchart [Truehart ?], Edward Voss, Daniel Wandeval, James Warington, Foster Web, Bikerton Web, Nathaniel Wilkinson, Isaac Yonghusband, P. Yonghusband."

Some of these old Virginia names are somewhat disguised by the vagaries of a French printing-office, but many of them were recognized by Samuel Mordecai,* a Richmond antiquary, of a former generation. Chevalier Quesnay says the first man who subscribed to his project was Colonel Randolph: "Le Colonel Randolph de Tachao [Tuckahoe], le premier qui ait souscrit, a fait d' autres avances considérable en faveur de cet Établissement." Quesnay says also that "John Harvie, Écuyer, Maire de la ville, Directeur de la Vente des Terres de l' État, est le premier qui ait adopté le projet de cet Établissement; il l' a toujours protégé depuis avec fermeté." In order to convince the French public that he had the strongest social support in America, Quesnay referred to a great number of distinguished people in various American cities who had shown him encouragement. In view of the prospective rivalry of the Richmond Academy with old William and Mary College, it is interesting to find Quesnay mentioning, among his friends in Williamsburg, " Le Rev. M. Madison, Président de l' Université, MM. John & Thomas Carter; le Général Gibson." He mentions also friends in Norfolk, Petersburg, Fredericksburg, and Alexandria. To Baltimoreans the following local patrons of liberal culture in the eighteenth century will not be without interest: "En Mariland, à Baltimore, M. Martin, Avocat-Général; M. le Docteur Buchanan (fils du feu Général de ce nom); M. Krocket, MM. Vanbibet, Williamson, Provayance Graves, le Colonel Brent, M. Hemsley, le Docteur Courter, &c." Thus the Chevalier Quesnay proceeds in his interesting tour of social progress through the older cities of the Atlantic seaboard, from Baltimore to Philadelphia, Trenton, Elizabeth, Newark, and New York. His local lists of first families afford an interesting criterion of the cultivated society of the period immediately following the American Revolution. This clever, diplomatic Frenchman evidently had the social entrée wherever he went on his academic mission. While mentioning, among his friends in New York, Governor Clinton, General Courtland, Mr. Duane, then mayor of the city, the Livingstons, Hoffmans, Halletts, Pintards, Seatons, Whites, and the army officers Niven, Ludlow, Ogden, Vandyke, Wool, and others, it is noteworthy that Quesnay speaks of General Baron von Steuben as "le premier de cet État qui ait adopté le projet" of a French Academy in America. It was an educated German in New York who first recognized the clever Frenchman's brilliant idea.

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*Samuel Mordecai, "Virginia, especially Richmond, in By-Gone Days," Second Edition, p. 205.

Quesnay's project was clearly for something higher than an American College. He had in mind the highest special training of American students in the arts and sciences. The following extract from a letter written to Dr. Franklin by his daughter, Mrs. Bache, doubtless at Quesnay's request, shows how the proposed Academy was viewed by educated people at the time. The letter is here translated into English from Quesnay's French version, published in his Memoir for the sake of influencing public opinion in France, where the name of Franklin was greatly revered:—

PHILADELPHIA, February 27, 1783.

"*My Dear and Honored Father:*

"With this letter you will receive a project for a French Academy which is to be established here. It is a very extensive plan which will do honor to the gentleman who has designed it, as well as to America. If it can be executed, it will in no way interfere with the plans of the colleges; it will be solely for the completion of the education of young men after they have graduated from College. Those who are already under M. Quesnay have made great progress.

"He regards you as the father of science in this country and appreciates the advice and instruction which you have never failed to give those whose talents are worthy of recognition. Money is the one thing needful; but the brother of M. Quesnay, when he delivers this letter, will inform you how you can be most serviceable. I know well how occupied you must be in this important crisis; but as a mother who desires to give her children a useful and polite education and who will be especially proud to have them trained in her own country and under her own eyes, I pray you to give M. Quesnay every aid and assistance that may lie in your power." * * *

Quesnay decided to establish his Academy in Richmond, because his earliest American associations and his best friends were in that capital. There he acquired, he says, a superb site for the building. His topographical description of Richmond, with reference to the situation of the Academy, is pleasing and graphic: "Le position de cette ville est charmante à tous égards, son emplacement occupe une vallée & deux collines, sur l' une desquelles est batîe l' Académie La rivière de *James* forme, au pied de son enciente, un superbe cascade, d' environ trois mille de longueur." The exact site of the Academy was long ago recorded by Samuel Mordecai, the Richmond antiquary, who probably saw the building with his own eyes. He says, in his charming medley of Richmond history, "The site chosen by M. Quesnay and on which he erected his Academy, is the square on which the Monumental Church and the Medical College now stand, the grounds extending from those lower points up Broad and Marshall to 12th street. The Academy stood nearly on the spot where the Carlton house stands."

The proceedings connected with the laying of the corner-stone are described by Quesnay, in his Memoir, and by the Virginia *Gazette* for July 1, 1786. The foundation was laid June 24 with Masonic ceremonies, in the presence of a great concourse of citizens. The mayor of the city, the French consul and, as Quesnay reported, "deputies of the French nation"* were there to honor the occasion. With the corner-stone was laid a silver plate bearing this inscription, preserved in French in Quesnay's Memoir: "Première Pierre d' une Académie dans la ville de Richemond, Alexandre-Marie Quesnay, étant Président, posée à l' Orient de Richemond, par les Maîtres-Gardiens & Compagnons de la L. No. 31, le jour de la Fête de St. Jean Baptiste, l' An de la V. L. 5786, de l' Ére Vulgaire 1786. John Groves, Maître. James Mercer Grand Maître. Edmund Randolph, D. P. G. Maître." Upon another silver plate

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*Quesnay appears to have had several French supporters in his academic undertaking. He says: "M. Claude-Paul Raguet a rendu des services importans à l' Auteur; MM. Audrin, la Case, Omphéry, MM. les Docteur Noel, & le Mayor; MM. Dorssière, & Bartholomy, & MM. Cureau, & Charles-Francois Duval, *en Virginie*, (tous Francais) ont appuyé son entreprise."

was recorded the following Latin inscription, which perhaps suffered in the printer's hands :

Anno Domini 1786, Reipublicae 10, VIII. Kalendas Julii, Res Virginiae administrante Patrik Henri, Academie quam designavit

ALEXANDER–MARIA QUESNAY

atque beneficiis plurium Civium bene meritorum adjutus, tandem perficiet, prima fundamenta posuit

JOHANNES HARVIE, *PRAET. URB.*

The six counsellors,* chosen by the subscribers to act with President Quesnay are mentioned in the latter's Memoir of the Academy. They were John Harvie, mayor of the city of Richmond, and "allié à la famille de son Excellence M. *Jefferson*"; Colonel Thomas Randolph ; Dr. James McClurg ; Colonel Robert Goode ; Dr. William Foushée ; and Robert Boyd. Benjamin Lewis was appointed treasurer.

Having founded and organized his Academy under the most distinguished auspices, Quesnay returned to Paris and began an active social and scientific propaganda in the interest of his grand project for uniting intellectually America and France. He called upon the savants of Paris. He visited the studios of artists. He consulted everybody whose opinion, good will or active co-operation was worth having. Quesnay was certainly successful in awakening the interest of the most influential people in the idea of establishing a French Academy in Richmond. As grandson of a distinguished scholar and as a returned soldier of France, he was able to obtain access to the highest circles. His project was presented to the King and Queen and to the royal family in a Memoir published with the sanction of the royal censor. The most cultivated men of the time appear to have favored Quesnay's undertaking. A commission of the Royal Academy of Science, signed by De la Lande, Thouin, Tenan, and Lavoisier, and certified by its secretary, the Marquis de Condorcet, reported favorably upon the Memoir, as did also a similar commission of the Royal Academy of Painting and Sculpture, signed by Vernet and other eminent artists. The published list of Foreign Associates (*Associés Étrangers*) of the Richmond Academy embraces the most distinguished French names in art, science, literature, and politics, together with representative men of England and United States. French influence naturally predominated.

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*The Virginia *Gazette*, May 1, 1786.

Among the celebrities whom Quesnay managed to associate with his Richmond Academy were Beaumarchais, secretary of the King; Condorcet and Dacier, secretaries respectively of the Royal Academies of Science and Art; the Abbé de Bevi, historiographer of France; Marquis de la Fayette, then a marshal of the armies of the King; Houdon, the sculptor; Malesherbes, minister of state; Lavoisier; the Count de la Luzerne, minister and secretary of state; Marquis de la Luzerne, royal ambassador to Great Britain; Marquis de Montalambert; the Duke de la Rochfoucault; Vernet, and many others.

Conspicuous as representatives of England and of America are Dr. Bancroft, of the Royal Society of London; Dr. George Buchanan, of Baltimore, Maryland, "Président de la Société Physique d' Edinbourg"; Thomas Paine, member of the Philosophical Society of Philadelphia; Dr. Richard Price, of London; Thomas Shippen, of Philadelphia; Jonathan Trumbull, who is described as "John Trombul, à New Haven état de Connecticut"; Dr. Robert Walker, of Petersburg, Virginia; Samuel Rutledge, of Charleston, S. C.; Benjamin West, of London, *et al.* Of all the names given, most significant to a student of American Educational History is that of Thomas Jefferson, "Ministre Plénipotentiaire des États-Unis de l' Amérique septentrionale, *à Paris.*"

Living in Paris at this very time and mentioned by Quesnay among the supporters of the proposed Academy, Jefferson must have been familiar with this early project for introducing the higher education of France into his native State. He looked upon the project with favor, otherwise he would not have allowed his name to be so prominently used in connection with Quesnay's scheme, which was, moreover, supported by some of the best men in Virginia. Indeed, Quesnay's idea was similar to that afterwards cherished by Jefferson himself when, in 1795, he began to correspond with George Washington about the feasibility of removing bodily to Virginia the entire faculty of the Swiss College of Geneva, which was thoroughly French in its form of culture. In this connection, it is interesting to find, among the Associates of the Richmond Academy, M. Pictet, "citoyen de Genève" probably the very man with whom Jefferson afterwards corresponded with reference to removal to Virginia. Jefferson himself says that he met some of these Swiss professors in Paris. Undoubtedly it was in that polished circle of learned men, within which Quesnay and Jefferson moved, that the latter's ideas of university education began to take cosmopolitan form. His original idea of a University for Virginia was to develop the curricuum of his alma mater, William and Mary College; but we hear nothing more of that idea after Jefferson's return from Paris. The idea of distinct *Schools* of Art and Science, which is so prominent a characteristic of the University of Virginia to-day is the enduring product of Jefferson's observation of the Schools of Paris and of his association and correspondence with their representative men.

If circumstances had favored Quesnay's project, it is probable that the University of Virginia would never have been founded. There would have been no need of it. The Academy of the United States of America, established at Richmond, would have become the center of higher education, not only for Virginia, but for the whole South, and possibly for a large part of the North, if the Academy had been extended, as proposed, to the cities of Baltimore, Philadelphia and New York. Supported by French capital, to which in large measure we owe the success of our Revolutionary War, strengthened by French prestige, by literary, scientific and artistic associations with Paris, then the intellectual capital of the world, the Academy at Richmond might have become an educational stronghold, comparable in some degree to the Jesuit influence in Canada, which has proved more lasting than French dominion, more impregnable than the fortress of Quebec.

Nothing is so enduring, when once established, as forms of culture. If French ideas had really penetrated Virginian society, they would have become as dominant in the South as German ideas are now becoming in the state universities and school systems of the Northwest. French ideas survived in Virginia and in the Carolinas long after the Revolution and long after the French government had ceased to interfere in our politics. It was one of the most difficult tasks in Southern educational history to dislodge French philosophy from its academic strongholds in North and South Carolina. It was done by a strong current of Scotch Presbyterianism proceeding from Princeton College southwards. In social forms French culture lingers yet in South Carolina, notably in Charleston.

Quesnay's scheme was not altogether chimerical; but, in the year 1788, France was in no position, financial or social, to push her educational system into Virginia. The year Quesnay's suggestive little tract was published was the year before the French Revolution, in which political maelstrom everything in France went down. If it had not been for one copy of Quesnay's Memoir, picked up years afterward by President Andrew D. White among the drift-wood of the Revolutionary period, it is doubtful whether the project for a French Academy in Richmond would have found its present place in the educational history of Virginia.

Provisional arrangements had been made by Quesnay, in 1788, after a year or more of social propaganda, for instituting the following "Schools" of advanced instruction in Virginia: Foreign languages; Mathematics; Design; Architecture, civil and military; Paintings; Sculpture; Engraving; Experimental Physics; Astronomy; Geography; Chemistry; Mineralogy; Botany; Anatomy, human and veterinary; and Natural History. The selection of suitable professors, masters, and artists was intrusted to a committe of correspondence established at Paris and consisting of Quesnay, founder and president of the Academy, or of his representative, of a permanent and assistant secretary, a treasurer-general, and nine commissioners elected from prominent members of the Academy. The prospect of appointing a numerous faculty seems to have become darker with the approach of the Revolution in France.

The committee of correspondence was organized, but, when it met, it appointed only one professor. His name was Dr. Jean Rouelle. He is described as a profound scholar and an experienced traveler, having a wide acquaintance with the natural sciences. He was elected (significantly enough from a French economic view), *mineralogist-in-chief* of the Richmond Academy. He was also to be professor of Natural History, Chemistry and Botany, thus combining the leading natural sciences in one comprehensive chair. He was engaged for a term of ten years and was instructed to form cabinets and collections for distribution in America and Europe. It was arranged that he should sail for America early in October, 1788; but it is doubtful whether he really went. Quesnay's brilliant project attracted brief admiration and then sank into oblivion.

The building* which he founded in Richmond was, however, completed. It served a purpose which entitles it to a monumental place in the history of Virginia architecture. It was the place of

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*Quesnay's French Academy was early converted into a theatre, the first institution of the kind Richmond ever had. Dramatic art found its first American recognition at Williamsburg and Annapolis; but Richmond early became one of its favorite seats. The "Old Academy," in Theatre Square, was destroyed by fire; but a a new theatre was erected in the rear of the old. This new building was also burned. Samuel Mordecai, a contemporary observer, says this theatre was "the scene of the most horrid disaster that ever overwhelmed our city, when seventy-two persons perished in the flames on the fatal 26th of December, 1811, where the Monumental Church now stands, and its portico covers the tomb and the ashes of most of the victims." This terrible holocaust and the memorial structure piously erected upon the spot will doubtless serve to remind the reader of the historic site of Quesnay's Academy, in the beautiful city of Richmond which is set upon hills.

Quesnay's curious and interesting "Mémoire concernant l'Académie des Sciences et Beaux Arts des États–Unis d' Amérique, établie à Richemond," from which the above sketch is chiefly drawn, was first mentioned to the present writer by Mr. George L. Burr, instructor of History in Cornell University. Voyaging through the Thousand Islands, up that ancient river-route by which the teachers and traders of France first penetrated Canada, we fell to talking of William and Mary College and of the educational history of Virginia upon which the writer was then en-assembly for the Virginia convention which, in 1788, ratified the Constitution of the United States. There, in the building designed to be the Academy of the United States of America, the statesmen of Virginia met, day after day, to discuss the greatest question which was ever agitated by any American academic or deliberative body since the Declaration of Independence. It was the question of federal union. It was decided after long and earnest debate, in which such men as James Madison, John Marshall, James Monroe, George Wythe, Edmund Randolph, George Mason, Pendleton, Nicholas, Grayson, Innis, Lee, and Patrick Henry took their respective parts. It was, after all, a nobler National Academy than that which the Chevalier Quesnay had conceived, nobler because it was American and not French. However admirable French science and the fine arts may have appeared to the Virginians at that time, it must be acknowledged that it was far better for their commonwealth that the introduction of these excellent gifts should have been deferred until a later period, when Jefferson was able to give Virginia the ripened fruit of a long life of observation, inquiry, and reflection, in that noble University which bears Virginia's name.

gaged. Mr. Burr, who had with him some of the proofs of the catalogue of the Andrew D. White Historical Library, now belonging to Cornell University, suddenly called to mind, in that collection, a French tract upon the Academy of Richmond. The writer's curiosity was immediately aroused and he begged to have the tract forwarded to Baltimore for examination. A careful reading of Quesnay's Memoir proved conclusively that a current of French influence was beginning, in the last quarter of the eighteenth century, to penetrate Virginia. Representing science and culture rather than religious or economic zeal, this Virginia current was different from the original French influence which crept into Canada by way of the St. Lawrence; and yet, it is very interesting to note what a practical direction French science took in relation to the discovery of our natural resources. Not without significance was Quesnay's casual suggestion of the propriety of establishing "une Chapelle pour les Catholiques Romains, épars en Virginie."

Samuel Mordecai, the Richmond atiquary who must have seen in his youth the "Old Academy," had access to Quesnay's Memoirs in preparing his chapter on Richmond Theatres. He says of the tract: "The writer is indebted to a gentlemen of literary taste and research for the use of an exceedingly rare little volume (in French) entitled Memoire and Prospectus concerning the Academy of Fine Arts of the United States of America, established at Richmond, the Capital of Virginia, by the Chevalier Quesnay de Beaurepaire, Founder and President." More than a generation has passed away since Mordecai thus expressed his obligation to a gentleman of literary taste and research. The present writer cannot better thank President Andrew D. White for the use of his copy than by recalling the words of the Richmond antiquary. Recent inquiry has developed the fact that Mr. Charles Poindexter, the State Librarian of Virginia, whom the writer met with Mr. Burr among the American Librarians upon the River St. Lawrence, presented a copy of Quesnay's tract some years ago to the State Library in Richmond, and also the fact that, within a year or two, a copy of the same rare little book was bought for a private library in Baltimore at an auction sale in the capital of Virginia.

THE STUDY OF LATIN.

II. HOW.

BY J. W. MAC DONALD, OF THE STONEHAM, MASS., HIGH SCHOOL.

In the preceding paper I have, I trust, made clear what seems to me the chief aim in studying Latin in schools below the college; linguistic culture in the broad sense there defined. I would not, however, be understood as holding that there are no other objects, or that this one remains the chief beyond the limits I have assigned it. Cicero never spoke more truthfully than when he said; "*Me diu cogitantem ratio ipsa in hanc potissimum sententiam ducit ut existimem sapientiam sine eloquentia parum prodesse civitatibus, eloquentiam vero sine sapientia nimium obesse plerumque, prodesse nunquam.*" There is, indeed, another object that should be made more and more prominent as the pupils' familiarity with the language increases, and, in college, should become the chief object, to wit, the development and training of the "thought-centers" of the brain; the endowment of the individual with greater facility and power in manipulating thought. I believe it capable of proof by the accepted laws of psychology, supported by examples, that as an instrument to this end, Latin if properly studied, has no superior, and among modern languages, no equal. Though this, as I have said, is a question for the college rather than the school, it should by no means be disregarded in the latter, and will there materially affect the method of teaching. Before dropping this point, permit me to say that perhaps no method, however aimless, will fail to accomplish some good, and that in no part of a Latin course do results fall so far short of what might be accomplished as in college. That expectancy of being caught by subtle influences that in some mysterious way are supposed to be hovering around the text, is not promotive of the best results. I know how presumptuous it is for a mere high-school teacher to criticize the college. Precedents are, for the most part, the other way. It is not unusual for a professor who sees more clearly the mote in his brother's eye than he does the beam in his own eye to raise his voice in lamentation over defective preparatory work, too often justly, it must be confessed. But if the college seems to him to accomplish its object more nearly than the fitting school, it is because the object is set low.

And now, if the reader will pardon the digression, we will return to the question, how should Latin be taught to effect the object set for it in the preceding paper ? And here I regret feeling obliged to mention first a few ways in which it seems to me, it should not be taught.

First ; the parts of speech should not be taken up in the conventional order in which they appear in most Latin grammars, and separately memorized before the pupil is introduced to the sentence. Beginning with nouns, if the pupil has any exercises at all in composition, it is putting into Latin, or the reverse, such detached expressions, as, Of a cause ; Of the causes ; For glory; Of the banks ; Against a friend ; In a large temple, &c. Once while I was giving this sort of a drill to a class, one of my pupils, for the word ass, wrote *magister*, apparently unconscious of the hit. I corrected him, but when I came to reflect upon the process I was putting him through, I felt compelled to admit that, at times, the words are pretty nearly synonyms. There are no such independent expressions in language. The oblique cases in Latin, for example, indicate relations, and, separated from those relations, have no value whatever. To talk about "of the stars" or "by the good boy" without any reference whatever to anything else, is clearly absurd. We have to use such fractional utterances in paradigms and vocabularies as a temporary expedient and short-cut, but they should be confined to paradigms and vocabularies, and learning paradigms and vocabularies should not be confused with learning to express thought. We speak of Gold Latin, Silver Latin, Brazen Latin and Iron Latin, and in our boyhood days we used to hear of Hog Latin. I would modestly suggest this last, as not an unapt name for the disconnected exclamations described above, and found, I regret to say, in some otherwise excellent Latin books for beginners.

Second; Syntax should not be taught by having the rules of some Latin grammar committed to memory. It is pure cram if done before the pupils have become familiar with the construction by repeated exercises in composition, and afterwards, it is pure waste of time. Do not understand me to condemn the use of grammars. If pupils always remembered what had once been taught them, grammars might, perhaps, be dispensed with. But they do not, and a book for reference will save many a reiteration by the teacher; and for this use a good grammar is a necessity. It is the first book I put into my pupils' hands and the only one till after they have begun Caesar. But I look upon the text as the manner in which a person familiar with Latin constructions has undertaken to explain them, and I want my pupils to become equally familiar with them, and equally individual in their way of explaining them. If pupils have mastered a principle, why should they not be allowed to explain it in their own language? Is not this, in fact, a test of their understanding? Furthermore, are we not aiming at linguistic culture, and do we not know that memorizing and repeating formulas contributes little or nothing towards this end? Besides, a rule fluently recited is often a cover for a faint comprehension of the principle, as any teacher will quickly learn if he gives to a pupil thus trained the simplest sentence to be turned into Latin. There are a few special constructions, such as verbs that require the dative, or ablative, or either form of substantive clauses, that I have found it convenient to have memorized after the pupils have become familiar with a large portion of them by repeated exercises, but they can be counted on the fingers. As for the practice still followed by some teachers, of having the rules learned and referred to by numbers, it is too vicious to require condemnation. It simply shows that the teacher has not the faintest conception of an object in studying Latin.

Third; in translating, the aim should be to translate the thought rather than the words or grammatical forms, and a "literal translation," so called, should *never* be allowed when it violates the usage of the language into which the translation is made. It is a mystery to me why teachers who would be shocked at the thought of putting an English idiom literally into bad Latin, will encourage and even require the reverse; who would not tolerate their pupils' putting the sentence, "this thing is an injury to no one," into the literal, *ea res nemini fraus est*, but *will* require them to render the corresponding *ea res nemini fraudi est*, into, this is *for an injury* to no one. Bad language as well as good, may become a habit and for its cultivation the street and the newspaper are strong enough without being re-enforced by the school. By bad language I do not mean bad grammar merely, for this is a fault too conspicuous to be very threatening, but the more common and reprehensible misuse of words of which Mrs. Partington's sayings are extreme illustrations. By constantly using words in incorrect connections and associations, the mind of the pupil becomes numbed to the accurate meanings of those words, and, as Sully in his Outlines of Psychology has repeatedly pointed out, his concepts become vague and inaccurate. To illustrate; if the pupil translates, "*Rursum in arma feror*," by "I am borne back again into arms," one of two things is certain; if he understands the meaning, he is associating the words "borne" and "arms" with ideas entirely foreign to them even metaphorically; if he associates only legitimate meanings with the words, he does not understand the senteme; "*utramque viam leti discrimine parvo.*" For to permit the pupil to slide over thoughts but vaguely comprehended, is also destructive of accurate scholarship, and this is what a literal translation too frequently permits the pupils to do, as any teacher who investigates will discover. But, say some, we require a literal translation first, and then an idiomatic one. Then the expounded laws of psychology are all awry, and the way to acquire good habits is first to practice bad ones. But, say others, we require this so that the pupil may understand the Latin construction. The way for a pupil to learn English construction is to compose correctly English sentences, and to learn Latin construction, to compose correctly Latin sentences. It would be poor policy, even if it were possible, to learn the constructions of a dead language by maltreating that of your own living mother tongue.

Fourth; the so called natural methods are very likely to become unnatural methods. Extreme advocates of these methods, as Miss Brackett has said in her admirable paper in the November ACADEMY, "forget that the adult-mind is so different in its workings from the child-mind as to appear almost a different type." Paradigms and forms that the child has been years in picking up, may be mastered almost in as many hours of good healthful study, by the more mature mind of fourteen or fifteen, and the process of learning a language may be very much accelerated.

The positions here taken are in exact accord with the principles and objects set forth in the preceding paper, and the logical outcome of them. But by this time, I fear, the reader has become tired of negation, and so have I, and we will now turn to the constructive side of the question.

In language the sentence is the unit, and with the sentence the pupils should begin as soon as possible. Preparatory to the first recitation, the class (supposed to be composed of pupils of about thirteen or fourteen years of age) should be required to memorize the present and imperfect indicative of the verb *esse*. In addition, a vocabulary is given them, comprising the nominatives singular and plural of a few nouns such as *puer*, *vir*, *puella*, *regina*, and *nauta;* the pronouns *ego*, *tu*, *nos*, and *vos;* a few proper names, as *Julia*, *Portia*, and *Marcus; in horto*, *in silva*, and *domi;* the conjunctions *et* and *sed;* and the interrogative *ubi*. It is easy to see what a variety of sentences can be formed from these words, and once the class is called to recitation this work begins. But a few words in regard to mechanical details. The class should be in a room by itself, and the best possible way to have the pupils write, is on a blackboard. The work is then done in plain sight, can be corrected at once by the class, and, hence, imposes no wearisome afterpart of looking over written exercises. Of course this requires blackboard conveniences, and where they are suitable, the class should be divided into two or at most three sections, of pupils as far as possible of equal ability. They should be sent to the board one section at a time, and those who are not writing can assist the teacher in supervising those who are. But in whatever way the work is done, every pupil should be alert and busy with his attention fixed, and will be, if the teacher has an aptitude for the work.

In this first lesson and the few that follow it, the teacher should call especial attention to the personal endings of the verbs, and their modifications, while the forms of nouns and other words may, for the present, be trusted to the process of absorption. But there is another matter to which attention should be given in this first lesson and in *every* lesson, namely, the arrangement of the Latin sentence, both as to its normal order, so called, and as to the effect of emphasis. Arrangement is by far the most important feature of the Latin sentence, and to ignore it is to ignore the very essence of Latin. The pupils from the start should be taught the emphatic places in the sentence, and to adopt the arrangement to the emphasis of the teacher's voice, or to the nature of the thought. For example, in answer to the question, *Ubi est puer?* the words designating the "where" should stand first because they are the most important, as *In horto puer est.* They should be taught that personal pronouns should be used as subjects of finite verbs only when emphatic, not optionally: that *Ego homo sum* has a different shade of meaning from *Homo sum*, and that the two must not be confused. There are some who hold that only sentences taken from classic texts should be given to the pupils, but to this there are two objections. First the vocabularies would have to be too large in proportion to the drill-sentences, for the pupils to master them properly; and, second, a sentence, arranged in its context with reference to what precedes and follows, may require, when taken out and written independently, an entirely different arrangement, or become misleading and confusing to the pupil's mind. Three lessons (*festina lente*) should be given to the indicative mood of *esse* and a vocabulary of about forty other words including several interrogatives. And here let me add that the aim in selecting words should be to familiarize the pupil with the common, fundamental words of the language, and not merely to help him along by giving him those that have a recognizable English look.

Next, the indicative active of the first conjugation may be taken up, and the objective forms of nouns, using at first those with which he is already acquainted, may be introduced. I have found it best to devote three lessons to this conjugation, increasing the vocabulary to about seventy words, including such verbs as *amare*, *laudare*, *culpare*, *superare*, *ambulare* and *liberare;* by such nouns as *rex*, *milites*, *medicus*, *viator*, *flores* and several special names of flowers; names of eminent men and places; various adverbs; and such subordinate conjunctions as *dum*, *postquam* and *quod*. Especial attention should be given to stems, the formation of tenses, and the difference between tenses of progressing action and those of completed action. As examples of the sentences that may be given to pupils at this stage, I submit the following: The girls, Julia and Cornelia, were walking in the field; The teacher frequently praises the girls Julia and Cornelia; While Cicero was consul, he saved (his) country; We praise Cicero because he saved his country. Most of my pupils will write the third, *Cicero dum consul erat*, *patriam servavit*, and will give the reason for the change of idiom.

Two lessons will suffice for the second conjugation, two for the third including stems in *ĭe*., and one for the fourth, though the teacher will, probably, find it well to intersperse one or two review lessons for drill.

Nouns should be taken next. Of the first three declensions the pupils have already absorbed the nominative and accusative cases, and pretty much the ablative, so that the work will be considerably facilitated. The general order now to be pursued will be somewhat as follows: nouns of the first declension, of the second, adjectives of the first and second, nouns of the third, adjectives of the third, nouns of the fourth, of the fifth, present active and perfect passive participles, imperatives, pronouns (many of which have already been introduced) and then the passive voice. Meanwhile occasionally an irregular verb will have been introduced to give time for drill on some particular point, and in addition to what may be designated as the normal uses of the cases, the pupils have been made familiar with such constructions as the accusative of time how long and distance how far, the ablative of cause, manner, means, way by which, price, and time when, and the dative with *esse* in idiomatic expressions denoting possession. As at first, the recitation hour is always one of writing, and unceasing attention is devoted to arrangement. Connected sentences are introduced, as the following: A boy standing on the bank of a brook flowing through the meadow, asked "whence come you, O brook, and whither are you going?" "I have come", replied the brook, "from the springs in the hills, and I am going to the great sea to which all streams go."

The passive indicative will now be easily acquired in one, or, at the most, two lessons. There are really but six personal endings to learn. Care, however, must be taken not to misuse the tenses, where confusion in the English passive is liable to mislead. After this, instead of disconnected sentences, to which the drill hitherto has been mainly confined, narratives can be introduced, and remaining forms of etymology and principles of syntax need be taken up only so fast as they are encountered. The narratives, indeed, should be selected so as to introduce them in somewhat the following order: (1) subjunctive mood and subjunctives of purpose and result; (2) future participles and periphrastic conjugations; (3) deponent verbs; (4) comparison of adjectives and adverbs; (5) indirect questions; (6) gerunds and supines; (7) verbs taking (*a*) the dative, (*b*) the ablative, (*c*) the genitive; (8) verbs requiring or admitting an infinitive to complete the statement; (9) substantive clauses, (*a*) in accusative with infinitive, (*b*) in *ut* with subjunctive; (10) *quum*, *quod*, etc., with subjunctive; (11) ablative absolute; (12) conditional clauses requiring subjunctive, etc. Some of these last topics will reach into Cæsar and Cicero.

But what shall the narratives be which are given the pupils before taking Caesar? The writer is of the opinion that they should be English translations of easy Latin texts. The style of Eutropius with slight adaptations is well suited for this, but the pupils may become weary of a too long continued narrative. Many of the fables of Phædrus can be used and will interest the pupil; but they will have to be somewhat adapted, first to a prose form, and second, to avoid introducing new constructions and idioms too fast, for if the pupil is successfully to break the bundle of grammatical difficulties, he must break them one by one. These, with stories taken from Cicero and other writers, will furnish an abundance of good material for this kind of work. It is better that the pupil should not see the original Latin text, but the teacher may find it convenient to keep it near him. It will be observed that I have said nothing about translating Latin into English. But little of it has been done. The pupil will get enough of that subsequently. For the present he is learning Latin.

Twenty to twenty-five weeks will suffice to prepare the pupils for Caesar unless the teacher wishes to give them more of the elementary classics mentioned above. I have found it best to read first in Caesar the accounts of the two expeditions into Britain and to continue the method of having the scholars reproduce the Latin from the teacher's English translation through a few of the first chapters.

During all this time, in preparing their lessons, the pupils have had more to do than merely to memorize the vocabularies. In every lesson they have been required to write out parts of verbs designated, sometimes certain tenses, sometimes participles or infinitives, and, latterly, synopses in the different persons, and the same with nouns, adjectives, and pronouns, especially where there are peculiarities. This has given them a familiarity with forms that they will be slow to forget.

After the Latin text has been placed in their hands, daily lessons are assigned the pupils for translation into English, and to this the first part of the recitation is devoted. Then the books are closed, and they are required to reproduce the Latin in whole or part, from the teacher's translation. If new or different constructions occur, especial drill is given upon them till they become familiar. A great deal of attention is given to substantive clauses, and then to indirect discourse, the pupils being required to write out suitable portions of the text, after such expressions as *Apud Caesarem legimus*, or *Caesar scripsit.* With this preparation they will find but little difficulty with the indirect discourse of the first book when they come to it. The same general plan is followed in Cicero, which I am pursuaded should come in whole or in part after Caesar, unless Sallust is put between. The great objection to reading Virgil early in the course is that the pupils confound the figurative use of words with their literal meanings. This may, in part, be corrected by having the pupils rewrite the story substituting literal for the figurative expressions, but it is somewhat hazardous.

Thus I have endeavored to set forth as much in detail as the limits of this article would permit, what I believe to be a proper method in teaching Latin, and it, at least, has this merit that it has an object, and an object, too, that has produced good results in the past. If any one is inquisitive to know how Milton acquired his mighty command of language, let him turn to the volumes of his published works where he will find pages of Latin poems. They are not Latin masterpieces; the best of them are far below their Latin models; but they show the training through which his command of English developed. We have borrowed from the past the fashion of studying the classics, without borrowing the purpose, and we need not be surprised if we have not got the results.

THE HOLIDAY CONFERENCE OF 1887.

In the absence of President Cutting, who has accepted a position at Lake Forest, Illinois, it becomes the duty of the chairman of the executive committee to call attention to the coming Holiday Conference of the Associated Academic Principals of the State of New York. The meeting will be held at the High School in Syracuse, Tuesday and Wednesday, December 27 and 28, 1887. All principals of secondary schools are cordially invited to attend.

The following extract from the constitution indicates the conditions of membership:

"Any principal of a secondary school may become a member of the association by the payment of fifty cents.

"Ex-principals who have been in service five years or more are eligible to membership."

The executive committee will be in session Monday evening, December 26, at the Conference Headquarters in the Vanderbilt House. The public sessions of the Conference will begin Tuesday morning at ten o'clock, at the Syracuse High School.

The leading hotels will entertain members of the Conference at the rate of two dollars a day.

It has been decided to invite the colleges of the State to send representatives who will be invited to take part in discussions, but it is distinctly understood that the Conference is controlled entirely by secondary teachers and is solely in the interest of the High Schools and Academies. Representatives from the Colleges may become members only when eligible by reason of having taught as principals of secondary schools five years or more. Normal principals are invited not as normal but as secondary principals.

No formal papers are expected. Informal discussions of practical matters interesting to principals will be the feature of this as of former meetings. The following are some of the topics suggested for discussion:

Are Commercial Courses profitable?
Mode of Promotion in Buffalo High School.
Proper length of Academic Course.
Industrial Education.
The Teaching of English.

What Sciences should we teach and how much time should be devoted to them?

The first Holiday Conference of principals in 1885 was an experiment proposed by Principal Cutting, then of Auburn. There was no question as to its success. The second Conference one year later, was larger, more enthusiastic, if possible, and may be accepted as a certain indication that these gatherings have a mission. There can be devised no better means of making the principals acquainted with each other, and this in itself is sufficient reason for holding the meetings. Besides this acquaintance and the inspiration and help that came to the individuals who attended, we venture to assert that no organization of teachers has ever in the same length of time accomplished more substantial and practical results than the Associated Academic Principals of the State of New York.

We cannot do better than to quote the closing words of President Cutting's circular last year:

"Arrange your holiday vacation so as to stop two days with us at Syracuse; invite your friends interested in Secondary Education to attend the Conference with you; write to the Chairman of the Executive Committee as to any topic you would like to hear discussed in the sessions; bring with you a disposition to be helpful and a spirit to strengthen the fraternal bond established between principals,—and the Holiday Conference of 1887 will be a source of personal pleasure and profit."

The writer will consider it a favor if teachers intending to be present will notify him of their intention.

George A. Bacon,
Chairman of Executive Committee.

COMMUNICATIONS.

9 W. 39th. St. New York, Nov. 16th. 1887.

Dear Sir—As in my article on Teaching French I was writing for teachers, I forgot to call attention to the fact that in the 3rd Singular of the Subjunctive Past the *sse* contracts into *t*, the circumflex vowel marking the contraction. Will you kindly allow me space for this statement in the December issue and oblige

Anna C. Brackett

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

There seems to be no lack of supplementary reading matter issuing from the various publishing houses. That our scholars read too much cannot be doubted. It is, perhaps, an evil which cannot be eradicated, and, if that be the case, the best modification of the evil will probably be brought about by getting in as much good reading as possible and thus crowding out the bad. We spoke last month of two books that pleased us, and have received several others since. One of these, a collection of *Folk Stories* told by Mr. Hiram E. Scudder, published by Houghton, Mifflin & Co., seems excellent. In a recent number of the Riverside Literature Series by the same house, we find the *Vision of Sir Launfal*, and other poems, by James Russell Lowell. This collection seems not so well adapted to its purpose as most of the numbers of this excellent series. A better selection for school use could, we think, have been made from Mr. Lowell's works.

We have received the third (October) number of the *Journal of Pedagogy*. It is published monthly at Athens, Ohio, under the editorship of J. P. Gordy, Ph. D., assisted by Prest. C. W. Super and Albert Leonard. The subscription price is one dollar a year. It is perhaps hardly fair to judge of a periodical by a single number, yet there is something in the general tone of this new journal that makes us feel that it is worthy of support. There is an absence of the flippant tone and scrappy make up which characterizes so much of our periodical literature. It seems to presume that there are teachers ready to read solid connected discussions of pedagogical subjects. Its editorial department is not filled with "gush," and its book notices are not solely in the interest of the publishers.

We have received the first annual report of the Commission of Colleges in New England on Admission Examinations. It covers the period from the time when the commission was organized to the first annual meeting held in Boston on Friday the twenty-second of April, 1887. In the March ACADEMY we gave considerable space to the subject of this commission, and wish now still further to call the attention of teachers to this present report. It may be obtained without cost by sending a two cent stamp to Prof. W. C. Poland, 7 Cooke St., Providence, R. I. We hope this report will have as large a circulation as possible. It must be remembered, however, that this commission wishes not only to communicate to the teachers what it has done, but still more to receive from the teachers suggestions as to what the secondary schools especially desire. The English requirement is particularly under discussion, and, by communicating to Prof. Poland their views upon this subject, teachers can assist the work and so in an indirect way benefit the secondary schools.

The president of Vassar College has issued a circular calling attention to certain changes in the requirements of admission to that institution. These changes concern the pupils' preparation in English, the Modern Languages, and Ancient History. They are all in the right direction, and we should be glad to see other institutions adopting the same course. On the other hand we have received notice from another college that the requirement in Latin and Greek will be increased in the next examination, while for the scientific course the conditions are unchanged. This is a step in exactly the wrong direction. The classical requirements if properly sustained were ample. They require now at least two full years of work more than the scientific. Yet they are to be still further increased, while the others are left as weak as before. This practically withdraws help from the secondary schools in two ways. It takes pupils into the college when, judged by any right standard of maturity, they should still be engaged in preparatory work, and it directly tends to counteract any efforts the secondary teacher may make to persuade pupils to take a thorough and substantial course of training. It is urged that these scientific courses with meagre requirements are designed to meet cases where pupils of somewhat mature years wish to obtain what they may of the benefits of a college course and are unable to give several years to the preparatory work. If this be true the improper use of these special courses could be prevented by setting an age limit for entrance which would forbid boys from chosing them for the sake of getting into college early and easily.

We should have mentioned above that the Board of Trustees at Vassar have voted to close the preparatory department, and after the next Commencement it will cease to exist.

Supt. Draper's address at Association Hall, New York, on "What Ought the Common Schools to do?" and "How can it be done?" adds to the accumulating evidence that he is the right man in the right place. It is no small satisfaction to find that the State Superintendent of Public Instruction not only cares and works for the interests committed to his charge, but also that he thinks wisely and speaks with judgment, and this satisfaction is in no way lessened by the fact that for many years we have been able neither to express nor to feel any great degree of approval of our chief educational functionaries. Supt. Draper has made himself felt throughout the State in many different ways, and they have all been helpful to the cause of education, and to the true interests of the schools. The measures which he has undertaken are such as commend themselves to teachers and ought to satisfy the public no less.

We must strenuously protest, however, against one expression in the above mentioned address. Mr. Draper speaks of "The honors and the pay which come to the High School faculty." In a High School report recently received we notice that the list of teachers is headed "Faculty," and that each of the gentlemen is styled "Professor." We confess our inability to appreciate the force of all this. We have heard of faculties of law, philosophy and medicine, and we had supposed that the term "Faculty" might properly be applied to the body of professors in one of our higher institutions of learning, but what good object is secured by applying the term to a body of teachers in a secondary school we do not know. They certainly have none of the functions of a Faculty.

This straining after titles is something which very properly subjects teachers to ridicule. Instructors in High Schools and Academies are not professors and of course cannot be honored by receiving titles not properly due to them. As used at the present time the word "professor" is absolutely meaningless. Formerly it was a title of distinction and it would have been better for us all if it had remained so. Now the tendency is to call every man engaged in the trade of teaching a professor. Teachers above all others ought to set an example in the exact use of words. Not long ago we saw an item in a college paper calling attention to the fact that a certain gentleman had been "appointed to the chair of Latin and Greek in the Syracuse High School." The other day an agent, who doubtless wished to secure our good offices, sent us a letter directed to the president of the same institution. We suppose our protest will not be any great hindrance to this popular *furore* for applying titles where they do not belong, but we sincerely hope that the few teachers who agree with us will do what they can to bring back into usage the good old word teacher for those who are not really professors.

The legislature at Albany during its last session passed several amendments to the school laws of the State. Of these one of the most important affecting secondary schools was the amendment to the charter of Cornell University in relation to the filling of the State scholarships. A uniform examination is now provided, and vacancies which occur in one county may be filled by appointments in another. This will not only result to the benefit of the University, the advantages of which will thus be extended to a greater number, but will also furnish a decided stimulus in those schools and localities which heretofore have sent the greatest number of candidates to the University. Where half a dozen pupils in the same school were preparing for Cornell, only one could expect to receive the State aid even if there were fifty districts which contained no candidate.

Of more general interest to teachers is the enactment which provides that all contracts with teachers shall be reduced to writing, and that teachers' salaries shall become due and payable as often as the end of each calendar month of the term of employment.

By chapter 592 it is provided that school buildings unfit for use as such may be condemned by the commissioner alone. Formerly the concurrence of the supervisor was necessary, but that is now dispensed with.

Hereafter library moneys will be apportioned to school districts in proportion to the aggregate number of *days of attendance* of children between the ages or five and twenty-one years, and not in proportion to the *number* of children in attendance as heretofore. This will of course be to the advantage of those districts which maintain their schools for the greatest number of weeks each year. Beginning with the apportionment of 1889, one-half of all the other school moneys will be apportioned upon the aggregate number of days of attendance of resident pupils between the ages of five and twenty-one years, and not upon the average daily attendance. This also will be to the advantage of districts where schools are maintained for the greatest number of weeks. The other half of the public moneys will continue to be apportioned upon the basis of the number of duly qualified teachers who teach for terms of at least twenty-eight weeks each year.

An increase of $60,000 is made to the fund distributed by the Regents of the University among academies and academical departments of union schools. The first apportionment and distribution under this act will be in January, 1888.

The superintendent is authorized to procure and publish architect's plans and specifications for school-houses to cost from $600 to $10,000. Supt. Draper has already invited the architects of this

State to send in plans and specifications. The buildings proposed are divided into six classes. In the first four classes there is no drainage or water supply except as may be provided for in the design. In the fifth and sixth classes, special reference is had to the needs of cities with ample facilities for drainage and water supply. In each case the point of compass toward which the building faces is indicated. The classes are as follows:

CLASS 1. Frame building facing the east, to accommodate from 20 to 40 pupils in one school room. Limit of cost, $600.

CLASS 2. Frame building facing the south, to accommodate from 40 to 60 pupils in one school room, or in two if a temporary division can be arranged. Limit of cost, $1,000.

CLASS 3. Frame building facing the west, to accommodate from 60 to 100 pupils in two school rooms. Limit of cost, $1,500

CLASS 4. Frame building facing the north, to accommodate from 100 to 120 pupils in two school rooms. Limit of cost, $2,500.

CLASS 5. Frame or brick building facing the east, to accommodate from 120 to 175 pupils in three school rooms. Limit of cost, $5,000.

CLASS 6. Brick building facing the south, to accommodate from 175 to 250 pupils in four rooms, and to have an exhibition hall. Limit of cost, $10,000.

Two prizes will be awarded in each of the above classes. To the designer of the best arranged and most complete building in classes 1, 2, 3, 4 and 5 respectively, the sum of $100 will be paid. To the designer of the next best in each of these classes, $50. In class 6, prizes are $150 and $75,

In *The Harvard Daily Crimson* for October 10th are found some interesting statistics. The total number of *bona fide* freshmen who entered Harvard this year is 263. The following table will show the number entering each of the four classes now in college, as well as the states from which they came.

Class of	'88	'89	'90	'91
Massachusetts,	148	149	158	153
New York,	31	39	34	40
Pennsylvania,	17	7	13	7
Illinois,	6	11	6	14
Ohio,	9	7	6	4
California,	5	7	9	5
New Hampshire,	4	4	7	6
New Jersey,	8	2	2	3
Other States,	23	31	34	31
Foreign Countries,	0	2	1	0
Total.	251	259	270	263

The editor adds, "It is very encouraging to note the steady increase of men from New York, especially when that State has two very large colleges, Columbia and Cornell, besides a host of small ones. Illinois is showing up extremely well and Colorado, which is not on the list, has contributed this year as many freshmen as California. The Southern States are very backward in sending men here, none of them contributing more than two. In the West, however, Harvard seems to be popular."

"In spite of the fact that Columbia College is situated in the very heart of New York City the delegation from there is exceptionally large. The number of men from Chicago has been largely augmented, but Philadelphia shows signs of weakness, perhaps from the fact that the University of Pennsylvania has sprung into such prominence during the past few years. With the exception of Chicago the western cities have not quite come up to the mark.

"In the case of the large boarding schools, notably Exeter and Andover, athletics play a large part in inducing students who have not quite made up their minds which college to choose, to go to the one or the other. There is also another important influence brought to bear on students at school, and that is the gratuitous advice given by the principal or members of the faculty as to which college a man ought to select. This often makes the influence of one college predominate over another, for if a student sees the mass of his classmates going to a certain college he very naturally joins in with them, although at first he preferred some other place. The following is a list of the number of men coming from the large preparatory schools :

	'87	'88	'89	'90	'91
Boston Latin,	20	21	17	30	30
Hopkinson's,	14	18	10	20	21
Phillips Exeter,	25	25	29	18	81*
" Andover,	11	8	8	14	4
Roxbury Latin,	7	12	15	11	18
Noble's,	9	13	10	10	6
Cambridge High,	8	5	11	12	7
St. Marks,	4	1	1	6	4
Adams Academy,	19	11	1	4	11
Somerville High,	6	2	3	4	6
St. Paul's,	9	7	2	3	11

The average age of men entering this year is about nineteen.

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* This is obviously a mis-print ; possibly 21 is intended, as in another place the editor speaks of the delegation from Exeter in '91 as larger than in '90 and smaller than in '89. [ED. ACADEMY.]

The largest cities have made the following contributions to the last two Freshman classes.

	Class of '90	Class of '91
Boston,	43	51
New York,	18	23
Philadelphia,	9	3
San Francisco,	5	4
Chicago,	4	11
Cincinnati,	4	2
St. Louis,	2	2

From the *Yale News* we learn that the 314 men of the present Freshman class come from the following states.

	Classical.	Scientific.	Total.
New York,	62	19	81
Connecticut,	46	41	87
Pennsylvania,	19	5	24
Massachusetts,	14	0	14
Ohio,	14	6	20
New Jersey,	12	1	13
Illinois,	10	17	27
Kentucky,	5	2	7
Iowa,	4	0	4
Minnesota,	3	2	5
New Hampshire,	3	1	4
Rhode Island,	3	3	6
Delaware,	2	1	3
Oregon,	2	0	2
Tennesee,	2	0	2
Vermont,	2	0	2
Other States,	5	5	10
Foreign Countries,	2	1	3
Total.	210	104	314

The cities having the largest number of representatives are as follows: New York City 32, Chicago 25, New Haven 21, Hartford 11, Brooklyn 10, Cleveland 10, Pittsburg 9, Albany 7.

The entering classes at Cornell University for the past four years, according to statistics furnished from the registrar's office, have been geographically distributed as follows:

Class of	'88	'89	'90	'91
New York,	151	151	193	237
Pennsylvania,	17	12	21	19
Ohio,	12	8	19	21
Illinois,	8	13	13	14
Massachusetts,	2	6	13	9
Indiana,	4	6	7	2
New Jersey,	1	4	6	5
District of Columbia,	2	2	8	7
Michigan,	2	3	2	7
Missouri,	1	3	4	5
Other States,	25	22	33	18
Foreign Countries,	7	9	4	4
Total,	232	239	323	348

The cities having the largest number of representatives, are the following:

Class of	'88	'89	'90	'91
Brooklyn,	4	7	8	12
Chicago,	1	1	8	9
Buffalo,	4	6	8	12
New York,	6	0	7	4
Washington,	2	2	8	7
Cleveland,	0	0	4	5
Philadelphia,	3	2	2	2
Syracuse,	2	3	5	7

The whole number of students in the University this term is 1,006.

The average age of the entering class this year is 19 years 6 months.

Nine students were admitted to advance standing in the class of '89 from other colleges and universities; twenty-five have been so admitted to the class of '88; sixteen have already been admitted in this manner to the class of '89, and thirteen to the class of '90.

Under the heading of "International Correspondence" in the *Revue Internationale de L' Enseignement* for October 15th, we note the following in a letter from St. Petersburg.

A REVOLUTION IN EDUCATION.

Since my last letter of Sept. 15th there has gone into operation in Russia a complete revolution in the organization of education.

Up to the present time it was admitted in principle here as elsewhere that the State should appeal to all its intellectual forces and should allow to all its children, as far as possible, free scope in education. There have thus been in Russia privileged schools for each and both sexes, and also, other institutions of various kinds which have been open to all, without distinction of social rank, of nationality or religion.

The Faculties in the chief cities, as St. Petersburg, Moscow and Kief, organized into Universities have furnished instruction to the youth of both sexes at prices so moderate as to be within the means of those in moderate circumstances. This organization has been obliterated by one stroke of the pen. Though many of them may continue to subsist, it will be under new conditions. Some have been suppressed. The courses of higher instruction for young women are to receive no more pupils, although nothing was demanded of the State and they were sustained by subscriptions. So with the courses of study preparatory to the gymnasia and pro-gymnasia of the two sexes—these are wholly suppressed.

As for the gymnasia they are "interdicted from receiving the children of all domestics, of small shop-keepers, washerwomen, peasants, etc." Before receiving a child the director or directress is to inquire respecting the social condition of the parents, their means of subsistence, their reputation and their nationality. Jews can be admitted only in a proportion which varies from three to five per cent according to localities. The directors have the right—absolute and without appeal to exclude any applicant. One may conceive what abuses such a right may involve, without control, in such a country as Russia.

The fees for pupils have been doubled and even tripled.

The directors of the gymnasia have been instructed to turn the youths whom they refuse into the technical and professional schools. Unfortunately, of these there is a scarcity, only 43 existing in the vast empire.

Thus these measures have excited a lively agitation and numerous protests. Many municipal councils have refused any longer to vote supplies for these institutions now that a considerable part of the population can no longer derive benefit therefrom. On the other hand, associations have been formed to aid the poor and deserving who cannot pay these increased charges. They are moved thereto by the double motive of not leaving without education a number of children eager for instruction, and also not to throw into the street a class of youth, whom the general conditions of our modern society have rendered exacting, and who will become very much more dangerous in their ignorance than can be those *déclassés* spirits against whom we have in the present state of things to provide, especially in our large cities. The admission to the higher instruction is surrounded by similar restriction, while the fees have been raised from ten roubles a term to twenty, and, even, in effect, to one hundred roubles. Fees for examinations and diplomas are also proportionally raised. There had been formed at St. Petersburg, side by side with the official university, teaching scientific and literary circles of students holding monthly reunions under the presidency of a professor. At these reunions the students read their works: the best of these were printed. This was a powerful means of emulation. Of these the purely scientific circles have been preserved, but the literary dissolved, which were officially occupied with literature and Russian and Slav philology.

Under the influence of these causes the remitment of students at St. Petersburg has fallen off from 783 last year to 238 this year.

The youths whose parents are in easy circumstances will go abroad to seek there the education denied them at home; the children of the upper classes can gain admission to the privileged institutions, but those without rank or wealth must inevitably swell the number of the discontented.

The examinations for graduation have also been made much more severe. The students for final examination must present a formal request together with the following: 1st. A photograph portrait to prevent substitution of some other person; 2d. A certificate of having followed the courses of the Faculty for eight semesters; 3d. A certificate that the applicant has led an irreproachable life during his terms of study; 4th. A dissertation written during the last three semesters upon a theme approved by the Faculty; 5th. An autobiography in which the student shall recount his past history and indicate his plans for the future. In the historico-philological faculty, this autobiography shall be written in Latin, and be accompanied by an analysis of the works of at least four classical authors, one dialogue of Plato, and a treatise of Aristotle ; 6th. A receipt from the treasurer of the university that the examination fee has been paid. The written examination consists of three separate parts according to the kind of degree sought, five hours being allowed for each topic, —fifteen hours of written work in whatever department.

The oral examination, to which only those who have successfully passed the written, as above, are admitted, takes in all four days.

A *post script* states that in consequence of these modifications made in the organization of education, the rectors of the Universities, the deans of the Faculties, have generally given in their resignations more or less spontaneously.

G. C. S.

*BOOKS RECEIVED.**

The Book of Folk Stories. Re-written by Horace E. Scudder. Boston : Houghton, Mifflin & Co. 1887.

Principles of Percentage, based on Reasoning. By H. E. Slaught, A. M., Prof. of Mathematics in Peddie Institute, Hightstown, N. J.

Froebel. Materials to aid a comprehension of the work of the Founder of the Kindergarten. New York and Chicago : E. L. Kellogg & Co. 1887.

Théâtre Français Classique, an Introduction to the Classic French Drama, from the Matinées Littéraires of Mennchet & Pylodet. New York : Henry Holt & Co.

Outlines of English Grammar. By William G. Williams, LL. D., Wright-Professor of the Greek Language and Literature in the Ohio Wesleyan University. Delevan, O.

Die Jungfrau von Orleans, eine romantische Tragödie von Schiller. With introduction and Notes by A. B. Nichols, Tutor in German, Yale University. New York : Henry Holt & Co.

A First Course of Physical Laboratory Practice. By A. M. Worthington, M. A., Late assistant master at Clifton College. With Illustrations. Boston : John Allyn, Publisher. 1887.

Elementary Treatise on Determinants. By William G. Peck, Ph. D., LL. D., Prof. of Mathematics, Mechanics and Astronomy, in Columbia College. New York : A. S. Barnes & Co. 1887.

The Principles and Practice of early and Infant School Education. By James Currie, A. M., Principal of the Church of Scotland Training College, Edinburgh. Introduction by Clarence E. Meleney, A. M., Supt. of Schools, Paterson, N. J., New York and Chicago : E. L. Kellogg & Co. 1887.

Health Lessons. A Primary Book. By Jerome Walker, M. D., New York : D. Appleton & Co. 1887.

This is superior to any similar book we have read. The writer rides no hobbies, gives sensible, plain directions, and recognizes the great truth that not all health laws are inflexible. There is as much condensed common sense in his talk to the teachers as one often sees in the same space.

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* **Any of these books may be more fully noticed hereafter.**

THE ACADEMY:

A JOURNAL OF SECONDARY EDUCATION.

DEVOTED TO THE INTERESTS OF HIGH SCHOOLS, ACADEMIES AND ACADEMIC DEPARTMENTS.

GEORGE A. BACON, . . . EDITOR.

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*ARITHMETIC IN THE BOSTON SCHOOLS.**

BY GEN. FRANCIS A. WALKER, PRESIDENT OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

Near the close of the last school year, the school Board of Boston passed the following orders concerning the study of Arithmetic.

1. Home lessons in arithmetic should be given out only in exceptional cases.

2. The mensuration of the trapezoid and of the trapezium, of the prism, pyramid, cone, and sphere; compound interest, cube root and its applications; equation of payments, exchange, similar surfaces, metric system, compound proportion, and compound partnership,—should not be included in the required course.

3. All exercises in fractions, commission, discount, and proportion should be confined to small numbers, and to simple subjects and processes, the main purpose throughout being to secure thoroughness, accuracy, and a reasonable degree of facility in plain, ordinary ciphering.

4. In "practical problems," and in examples illustrative of arithmetical principles, all exercises are to be avoided in which a fairly intelligent and attentive child of the age concerned would find any

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* Read before the Grammar School Section of the Massachusetts Teachers' Association, at Boston, Nov. 25, 1887.

considerable difficulty in making the statement which is preliminary to the performance of the properly arithmetical operations.

When arithmetical work is put into the form of practical or illustrative problems, it must be for the purpose of interesting and aiding the child in the performance of the arithmetical operations, and with a view to their common utility.

5. In oral arithmetic no racing should be permitted; but the dictation should be of moderate rapidity.

6. The average time devoted to arithmetic throughout the Primary and Grammar School course should be three and a half hours a week; and in the third Primary grade, not more than two hours, and in the first and second Primary grades, not more than three and a half hours each per week.

It is the purpose of the present paper to state the considerations, as I conceive them, which moved and guided the school Board in taking the action recited.

The inhibition of home lessons in arithmetic stands upon somewhat different ground from the other orders of the committee. It might fairly be asked, why arithmetic should not be put upon the same level with geography or grammar or history or physiology, as a possible and proper matter for home lessons, if, indeed, home lessons are to be assigned at all. In answer to this question, I may say that the committee which recommended the rule recited were actuated by three considerations.

First—the committee, having become satisfied that there is a tendency unduly to magnify the importance of arithmetic on the part of many grammar school teachers, and to allow that subject to encroach alike upon the time which should be devoted to other subjects of study and upon the time which should be given to recreation, exercise and rest, deemed home lessons by far the most likely avenues for such encroachment, and therefore prohibited their use in connection with this branch of study, save only in cases clearly exceptional, as, for instance, when a pupil has for some time been absent from school and has, consequently, back work to make up.

At this point it may be not inappropriate to remark that careful enquiry of the superintendent and the supervisors of schools failed to elicit the faintest evidence that better results in arithmetic were, as a rule, attained in schools where home lessons in this branch were habitually given out to the pupils of one or another or of all the three upper classes, than in schools where no such lessons were assigned. The reasons for such an apparent waste of the time and force expended upon home lessons in arithmetic, will, I think, abundantly appear in the further course of this discussion.

Secondly—Arithmetic, as the subject matter of home lessons, affords peculiar opportunities for doing injustice as between pupil and pupil. In some degree, such injustice will be done whenever the work of the pupil is transferred from the school-room, where all have equal advantages as to light and air, quiet and the individual attention of the teacher, to their homes, where the widest possible range exists as to the conditions under which the work shall be prosecuted One pupil takes his "sums" to a quiet study-room, well lighted and warmed; another pupil takes his task back to a home where it is to be performed amid noise and squalor, by an inadequate and doubtful light, perhaps with half a dozen children in the same room, possibly with drinking and smoking going on. Such a range of conditions would apply equally to all subjects taken for home lessons, but it would produce a far greater effect in the case of arithmetical tasks, requiring a peculiar degree of abstraction and attention, than in the case of almost any other subject that could be taken.

Of even more importance, in this connection, is the consideration that the parents of some pupils are capable of helping them to the solution of their problems and are very likely to do so if the work is seen to be too difficult, while other parents are entirely incapable of giving any assistance to their children no matter how heavily they may be taxed by the tasks assigned. It goes without saying that such an inequality of conditions would produce far less injustice, as between pupil and pupil, if history, geography, grammar or physiology were the subject matter of the home lessons.

Thirdly—The last and most conclusive of the considerations against home lessons in arithmetic is that the absence of the master prevents any authoritative interposition to put a stop to the business when, even according to the standards of the most ardent advocates of pedagogic torture, it has already proceeded far enough. In the old flogging days of the army and navy, it was always required that the surgeon should stand by, to feel the pulse of the poor wretch under the lash, to watch the signs of approaching nervous collapse, and, in his discretion, to forbid the punishment to proceed further. But in the case of our young children who are assigned home lessons in arithmetic, no such humane provision exists. Were the work being done in the open school-room, the severest master would, when he saw that the child did not understand the problem, could not do the work, and that it was only becoming more excited and fatigued by repeated attempts, interpose either to give assistance or to put a stop to the exercise. In the case of home lessons, however, an ambitious and sensitive child finds no such relief. The work may go on long after the child should have been in bed, until a state is reached where further persistence is not only in the highest degree injurious but has no longer any possible relation to success. The boy or girl, hot, tired, overwrought, quivering with distress, could no more do "the sum" in such a condition, than he or she could "put up" a hundred-pound dumb bell. Yet the remonstrances of parents only produce fresh tears, and when at last authority is exerted and the child is driven to bed, utterly unfitted for that sound and refreshing sleep which should close every child's day, the task is still unperformed. Over and over and over again have I had to send my own children, in spite of their tears and remonstrances, to bed, long after the assigned tasks had ceased to have any educational value and had become the means of nervous exhaustion and agitation, highly prejudicial to body and to mind; and I have no reason to doubt that such has been the experience of a large proportion of the parents whose children are habitually assigned home lessons in arithmetic.

Such were the considerations which induced the committee to pass the first order which has been read in your hearing.

Regarding the remaining five orders, considered as a body, it may be said that the committee in framing them were actuated by the belief, formed partly through their individual experience and observation of public school instruction, and partly as a result of an investigation conducted by the committee in pursuance of an order of the School Board under date of April 27, 1886, that both loss of time and misdirection of effort, with even some positively injurious consequences, were involved in the teaching of arithmetic, as carried on in some of the Boston schools. And here let me say, to prevent misapprehension, that the committee at no time intended to reflect on the schools of our own city as compared with those of neighboring cities and towns. Personally, I believe that the teaching of arithmetic has been more humane and rational, of late years, in the schools of Boston than in those of most New England towns and cities.

What, then, are the faults complained of?

First—That the amount of time devoted to this study is in excess of what can fairly be allotted to it, in the face of the demands of other and equally important branches of study.

Secondly—That the study of arithmetic is very largely pursued by methods, supposed to conduce to general mental training, which, in a great degree, sacrifice that facility and accuracy in numerical computations so essential in the after life of the pupil, whether as a student in the higher schools or as a bread winner.

Thirdly—That, as arithmetic is taught in many perhaps in most schools, the possible advantages of this branch of study, even as a means of general mental training and of the development of the reasoning powers, are, whether by fault of the text book or of the individual teacher or of the standards adopted for examination, largely sacrificed through making the exercises of undue difficulty and complexity, the exercises prescribed often reaching a degree of difficulty and complexity which not only destroys their disciplinary value but becomes a means of positive injury.

The three propositions just recited, I will, with your indulgence, take up in consecutive order.

First—The estimation in which arithmetic is held, alike by the general public, by school boards and committees whose duty it is to lay out and arrange the course of study, and by the teachers who, enjoying more or less freedom of action, are to carry the prescribed schemes of instruction into effect, is very largely a traditional one. The recognition of changed circumstances and conditions, the persistent intrusion of new demands and requirements arising out of those changes in condition and circumstance, have, indeed, caused both the official and the popular estimation of arithmetic to be more or less fully revised and modified. Yet, so strong is the force of tradition, especially in the school system, where the pupils of one generation become the teachers of the next, that we cannot too carefully enquire whether the reasons which at one time underlay this or that part of our scheme of instruction, have not disappeared.

The objects sought in teaching arithmetic to the children of our public schools are two. First, foremost, and absolutely indispensable, is the acquisition of the ability to perform simple numerical operations with reasonable rapidity and with almost infallible accuracy. Greatly as children differ on the side of their minds concerned in these operations, there should be yet no difficulty in securing the above result in the case of all but a very few persons who may perhaps, for school purposes, be regarded as hopelessly indisposed toward numbers. Probably every one of these last cases would in time yield to judicious individual treatment; but, as children have to be dealt with in large classes, we must accept a small proportion of failures, in this respect, as inevitable.

What is the standard which should be set up for attainment in arithmetic, having reference only to the practical value of that attainment in after life? I answer, 1st, the ability to count infallibly objects occurring irregularly, up to two or three hundred, say, for example, packages of tickets or checks, dots upon a piece of paper, persons in a small audience room, etc.; 2nd, the ability to add, without the possibility of a mistake, columns of figures such as would occur in an ordinary savings bank deposit-book or housekeeper's pass-book; 3rd, the ability to add two numbers, each below one hundred, or to subtract the less from the greater, rapidly and without recourse to pen or pencil; 4th, the ability to multiply, on the slate or blackboard, one number of moderate length by a small multiplier, or to divide it by a small divisor; 5th, the ability to compute simple interest, on moderate sums, at even rates per cent., for round periods; 6th, the ability to work simple examples in "Reduction," involving the use of the American tables of weights, measures, and moneys.

If every boy and girl, on leaving the grammar school, at, say, fourteen or fifteen, had reached this stage of attainment, the public schools would have fairly done their duty by them, so far as the practical uses of arithmetic are concerned. This is all I would ask for my own son or daughter. This is as much as nineteen boys out of twenty, ninety-nine girls out of a hundred, who do not go beyond the grammar schools have occasion to put frequently to use in the work of their lives. If the twentieth boy is to be a clerk or accountant or to take up business for himself, he will, very readily, from this basis, acquire the needed facility in casting up the columns of a ledger, or in working heavier sums in multiplication or division.

This is the first object to be sought through the study of arithmetic; and its importance has neither increased nor diminished, since the days of our fathers.

The second object which is properly sought by means of the studies and exercises in question is general mental training.

The importance of this function of arithmetic has greatly declined during the present generation by reason of the introduction of new studies and exercises, some of which are equally well adapted if, indeed, not better adapted, to perform the required work. Thirty and forty years ago, the studies in our public schools were few and simple. Reading, writing and arithmetic, a little grammar, some crude declamation, with political geography, made up, substantially, the course of study. Of the physical geography of to-day, extending even to what were once the mysteries of meteorology, taking into account the influence of currents of air and water upon climate, and of climate upon the productions of the soil and upon the occupations of man, there was then not a trace. History and civil government were unknown studies in the grammar schools of those days. Physiology was just about to enter the schools, in spite of the protest of an eminent citizen of Massachusetts on the ground that it was one of a group of sciences none of which should be brought into the schools unless all were to be. Music and drawing were to wait still longer for recognition by school authorities. The elementary mechanics and physics, so successfully taught in many schools, were then not dreamed of as possible subjects of study. A district schoolmaster of the past generation would as soon have thought of teaching the language of Archimedes as of explaining the principle of the lever and fulcrum.

The introduction of many new subjects of study has greatly reduced the importance of arithmetic as a means of general training. In the generation just passed, it was necessarily looked to for very much of the development and discipline of the pupil. To-day a half score of separate sciences or important subjects of study offer themselves to do the same work, in one or more of which are unmistakably found all the educational virtues which belong to arithmetic, together with others which arithmetic does not possess. The strongest claim made in behalf of mathematical study has been its cultivation of the power of continuous attention: yet the degree of attention which can be commanded, on the part of children dragged reluctantly through compound fractions or cube root, is far inferior to that given by a group of eager boys and girls following an enlightened teacher in some branch of natural history. Generally speaking, it may be said of the new subjects, that, while they train the powers of reasoning not less efficiently than does arithmetic, they also bring into play the powers of perception and observation which in all branches of mathematics are left absolutely unused.

I would not wish to be understood to assert that arithmetic has ceased to have any educational value at all, beyond its practical utility in the public school of to-day. I entertain no doubt that, in the primary school, and even the lower classes of the grammar school, number-lessons, in application to concrete objects, may be helpful in awakening interest, arousing thought and bringing the mind into healthful exercise, but I do seriously question whether for every hour spent by a boy of thirteen or fourteen years of age in the study of arithmetic, beyond what is necessary to secure the degree of accuracy and facility indicated at an earlier stage of the discussion, an hour spent in some other kind of study might not be substituted to his very great advantage. However this may be, it seems to me clear that arithmetic, by virtue of its having been earlier on the ground and its enjoying the prestige and authority derived from the past, continues to-day to occupy space which is urgently needed for the proper extension of some of the new subjects, which, in spite of the recognition of their practical utility and educational value, have scarcely been able to secure a foothold, in fact, although forming a feature of the grammar school curriculum, on paper.

The second of the main propositions laid down was that the study of arithmetic is very largely pursued by methods supposed to conduce to general mental training which, in a great degree, sacrifice that facility and accuracy in numerical computations, so essential in the after life of the pupil, whether as a student in the higher schools or as a bread winner.

That the results of the study of arithmetic in the grammar schools are unsatisfactory, so far as the ability of the pupils to perform numerical work correctly and with reasonable dispatch, whether in subsequent studies or in actual business operations, seems to me established by abundant testimony, both of merchants, manufacturers and bankers, receiving graduates from our grammar schools, and of teachers in higher institutions of learning. The average pupil falls short of the very moderate degree of attainment which I indicated as fairly to be expected from all but a very few highly exceptional scholars, and that too with very much less than the amount of time actually devoted to arithmetic. The head-masters of both of the great High Schools of Boston have assured me that they find grave deficiencies on the part of large numbers of pupils coming from the grammar schools, in this matter of accuracy in simple numerical operations; and I have received similar information from the head-masters of High Schools in other cities. In the institution with which I am personally connected, instructors in Algebra, for example, find that many pupils who are familiar with difficult theorems and are masters of complicated formulæ, often vitiate their work by simple numerical mistakes, such as would have been impossible had they been properly trained in the earlier stages of their mathematical education. Prof. Safford, the eminent mathematician and astronomer of Williams College, in a recent treatise states that he finds in his own pupils a great want of skill in ordinary calculations and that inaccuracy in simple arithmetical work is very common. In the letter which I have to-day received, Prof. John E. Clark, the head of the mathematical department of the Sheffield Scientific School of Yale College, states very strongly the deficiencies of students entering that school, in the matter of simple numerical accuracy and facility.

Embarassing as are such deficiencies in the case of students pursuing long courses of study, the results in the case of those students who leave the grammar school to begin to earn their own living are in a high degree disastrous. To repeat here language which I have used elsewhere: employers have literally no use for boys who make mistakes in numbers. Such a failing offsets the best training, otherwise, of mind and hand. In a store or shop or factory, or on a railroad, a lad who cannot set down figures, and add them rightly, every time, must take and keep an inferior position. If any greater wrong, short of a permanent injury to health, can be done a child than to send him out into the world to earn his living without the ability to conduct numerical operations accurately, it is difficult to see in what that injury would consist.

The defect which has been thus severely commented on is not due to a lack of time devoted to exercises under the name of arithmetic, but to the fact that so little properly numerical work is involved in these exercises. Scarcely has the pupil learned the four simple rules, when he is given numerous technical applications requiring the use of extended tables of weights, measures and moneys, and so-called practical or illustrative problems which necessitate deep and long puzzling over the relations and terms involved. Even in the early stages of this process, seldom is so much as one half of the time given to proper numerical work. Often that proportion sinks to a third, or a quarter, or even a smaller share. Sometimes the amount of such work becomes inconsiderable. Who of us has not seen a bright lad spend ten or fifteen minutes over a practical problem, when the mere addition, multiplication, subtraction and division involved would not have occupied as many seconds?

It was partly to increase the amount of actual numerical work to be done in an hour devoted to so-called arithmetic; in part, also, to reduce the load which our children are required to carry all the time on their minds, ready to be at any instant unpacked and put to use, that the School Board of Boston have thrown overboard the large and miscellaneous "lot" of subjects mentioned in their second order. It was with reference in part to the consideration just indicated, and, in part, to that consideration which remains now to be stated, that they passed the orders numbered three and four.

The third and last of the main considerations which actuated the School Board, dealing with this subject, has been stated as follows:—That, as arithmetic is now taught in many, perhaps in most, schools, the possible advantages of this branch of study as a means of general mental training, are, whether by fault of the text-book or of the individual teacher or of the standards adopted for examination, largely sacrificed, through making the exercises of undue difficulty and complexity, the exercises prescribed often reaching a degree of difficulty and complexity which not only completely destroys their disciplinary value, but becomes a means of positive injury.

It was, in the belief just stated, that the Board prescribed that all exercises in fractions, discount, commission and proportion should be confined to small numbers, and to simple subjects and processes; and, again, that in so-called practical and illustrative problems, all exercises in which a fairly intelligent and attentive child of the age concerned would find any considerable difficulty in making the "statement" which is preliminary to the performance of the properly arithmetical operation, shall be deemed objectionable.

This action of the school committee was at the time opposed, and is still by some criticized, on two different grounds. One, that the exercises given to the children in the Boston schools, whether as examples under the rules mentioned, or as practical and illustrative problems, have, in fact, uniformly been simple and easy; the other, that, in sound educational theory, the exercises given to young pupils ought to be difficult, complicated, perplexing and distressing, in order that the child's mind and spirit may undergo a due preparation for the difficult duties and hard problems of life, one enthusiastic writer of this school going so far as to declare that it is essential to good education that the sums set for the pupil should be not only often difficult but sometimes actually impossible of solution by him, in his then stage of mental development.

To the assertion, so constantly made, as to the simple and easy character of the exercises prescribed for our children, it may be replied, that, if the facts are as stated, the rules imposed can do no harm; but that the personal testimony of members of the Board abundantly establishes the fact that absurdly complicated exercises in fractions, cube root, etc., and practical problems amounting to the severest logical puzzles, were given out, in some of the schools of Boston, down to the very date of the order recited.

As to the educational theory which was, both in debate and in outside criticism, brought to bear against the proposed rules, I may say it is pleasure to encounter error with so little of disguise. If its advocates are in the right, the action which the school-committee have taken is, of course, all wrong; but I, for one, do not hesitate to assert that this theory, in its milder form, is inconsistent with the best and ripest results of modern physiology and psychology; while I denounce that theory in its extreme shape, as a relic of barbarism, closely akin to some of the most savage superstitions of primitive mankind. The notion, that exercises, either mental or physical, prescribed for young children, should be often up to the full limit of their powers, and should at times exceed those powers, is distinctly false. The true gymnastic for the growing child is through exercises easy and pleasant, which lead insensibly up to ever higher planes of attainment, as the faculties are expanded and strengthened, according to their own law of growth, through gentle and agreeable exercise. Wherever fatigue, confusion and the sense of strain begin, there the virtue of the exercise ceases, whether for promoting the growth of the powers or for the training and disciplining of the powers as they exist. Loss and waste—it may be much, it may be little—begin at this point, and go forward, from this point, at a constantly accelerating ratio.

In college, thirty years ago, those of us who were given to athleticism were accustomed to use heavy dumb-bells, the heavier, we thought, the better. Twenty-four and thirty-two pounders, the famous "fifty-sixes," and even eighty pound bells were much in favor with young fellows who desired to become strong. To-day, a prize fighter, preparing to contest the championship of the world, uses, habitually, very light dumb-bells, just heavy enough to give a purpose to his blow and to be distinctly felt at the end of the stroke. He makes, with the light bell, ten strokes to one he would make with the heavy bell, and gets twice as much good from the exercise. If this be the part of wisdom for the grown giant, overflowing with the exuberance of his strength, much more is such a course desirable in the case of young, tender children, yet in the gristle, the frame and brain still plastic and yielding, with the possibilities of manhood and womanhood but dimly intimated. Whether for the promotion of future growth, or for the training of the powers as they are, or for the acquisition of the inestimable art of rapid and accurate computation, school exercises in arithmetic should, in the opinion of the Boston Board, be easy and simple, with the resulting advantage of becoming more frequent than is possible, within any reasonable limits of time, in the case of the highly complicated and difficult sums and problems with which the traditional gymnastic deals.

The greatest enemy, however, to true arithmetical work, is found in so-called practical or illustrative problems, which are freely given to our pupils, of a degree of difficulty and complexity altogether unsuited to their age and mental development. It is bad enough to give boys and girls of twelve and fourteen years of age numerical operations far exceeding in difficulty those which any bank cashier has to perform from one year's end to another; to require them to extract the cube root of three-sevenths; to pile one irregular and jagged fraction on top of another, and then ask them to divide or multiply this by an arithmetical monstrosity as hideous and impossible as itself. But, at least, a pupil so engaged in actually dealing all the time with numbers. It is through so-called practical and illustrative problems, that bad teaching in arithmetic does its worst. The loss of time may be no greater; but the resulting confusion and sense of strain are apt to be more bewildering and distracting to children of the ages concerned. Every teacher and every parent whose children have been given lessons in home arithmetic, know too well the kind of problems to which allusion is made. I am, myself, no bad mathematician, and all the reasoning powers with which nature endowed me have long been as fully developed as they are ever likely to be; but I have, not infrequently, been puzzled, and at times foiled, by the subtle logical difficulty running through one of these problems, given to my own children. The head master of one of our Boston High Schools confessed to me that he had sometimes been unable to unravel one of these tangled skeins, in trying to help his own daughter through her evening's work. During this summer, Dr. Fairbairn, the distinguished head of one of the colleges of Oxford, England, told me that not only had he himself encountered a similar difficulty, in the case of his own children, but that, on one occasion, having, as his guest, one of the first mathematicians of England, the two together had been completely puzzled by one of these arithmetical conundrums.

The vice of such problems is of a double nature. First, there is the fact of undue complexity and difficulty. Secondly, there is the fact that the special faculty concerned does not normally develope in the child's mind until a later period of life than that generally concerned in these operations. In this connection I refer to the letters from Pres. Porter and Profs. Howison, James and Stanley Hall, which were made a part of my address to the Boston school board on the 12th of April last. For one, I believe it to be altogether undesirable to attempt to pry this faculty up from the mass of mind, in which, by nature's wise provision, it still lies embedded and dormant, and bring it prematurely into consciousness and exercise.

Whether one agrees with the reasons which have been inadequately presented, or not, such is, at any rate, the law of the schools of Boston to-day, under adequate authority; and those teachers who still believe that children should be harassed and distressed in education, for their souls' and minds' good; that the exercises of the growing boy or girl should be carried to the point of strain; and that sometimes the pupil should even be set examples he cannot perform, will perforce have to resort to some other instrument of torture than arithmetic.

THE THOUGHT ELEMENT IN LANGUAGE STUDY.

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My subject, which is printed in brief "The Thought Element in Language Study," if put into the interrogative form and more definitely stated would read, "How may language study be made a better training for the thinking powers?" This paper assumes that all are willing to admit that improvement is possible in this as in all departments of study. It treats of *training* in thought, not merely of how to incite thought or to suggest ideas. There are many bright teachers brimful of ideas who do not give their pupils the power to think consecutively. Our question is how can we so teach language that our pupils shall at the end of the year be able to think on any subject more logically, more sharply and more persistently than at the beginning.

Much progress has been made in late years toward making all studies of the school course means of training the higher mental faculties instead of memory alone. Language study has been no exception. The student of our day writes as well as reads the language from the first, he commits to memory, as a rule, only those parts of the grammar which he is to use at once in reading and writing, and, most noteworthy of all changes, reading at sight has become a prominent aim in all teaching of foreign language. I wish to enquire what further progress must be made in order that the study of language may become a thoroughly scientific training in thought.

It has been well pointed out by Prof. Morris, of Williams, in a little paper on "The Study of Latin," that there are grave difficulties in making the laboratory study of physical science feasible in the large lower classes of our high schools. If the study of language can be pursued inductively, it has the great advantage of furnishing in its words and sentences any number of specimens for observation at all times, and these can be handled with only a fraction of the difficulty and danger which attend similar work in the laboratory of physical science. Here there is a great opportunity for the strict laboratory study of language.

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In the beginning of this discussion a basal fact must be stated which underlies it all. It is this: Successful thinking is not secured without extraordinary effort on the part of both teacher and pupil. I acknowledge that I have often experienced a feeling of irritation when I have heard teachers addressed at conventions and elsewhere as though they were very stupid and altogether to blame if they did not teach their pupils to think. Such language argues in those who use it a very imperfect comprehension of the greatness of the task of thought training. If teachers have failed to teach their pupils to think, they have failed to do a very difficult, not a very easy thing. If you have ever tried to drive a hen through a hole a foot square in the side of a barn you know that if you wish her to move gently toward the east, she is seized with an irresistible desire to go to the north, or if you wish her to go west she has urgent business down south. It is much the same with a pupil who is just learning to think with your guidance. You must head him off in almost every direction at once with skill and vigilance or he will find some way of eluding you..

Let me illustrate by a simple example. I once saw in an examination paper on American Literature the following question : " What two authors of your course do you like best, and for what reasons ?" That is an excellent question. It is simple, it is clear, it appeals to individual experience and knowledge and calls for independent thought. Now, how is it answered ? I take up the answers of one of the best scholars in the class and find these words. " I like Hawthorne because his stories begin in mistiness and end in mist." Of course no young person ever liked stories for any such reasons as that. They all want to know how the story " comes out." So, turning to the text-book used by the young lady, I find printed on the top of a certain page, " his stories begin in mistiness and end in mist," in a quotation showing why Hawthorne's stories are unsatisfactory. The answer was absolutely valueless, and yet I have the best reasons for believing that the pupil had received most excellent teaching, persistent, earnest, and specially directed toward awakening thought. The loophole of escape from a thought process here was in the text-book which contained a series of opinions of the authors studied in connection with specimens of their writings, and yet I do not know that a better text-book in American Literature exists.

Now it is not remarkable that the child should memorize instead of think. In the early stages of study the memory must and ought to play the most prominent part. It becomes fully developed and active while the thinking powers are immature and uncertain. A mental, like a physical force, follows the line of least resistance, which is in this case decidedly the line of memory. Add to the natural proneness to use this faculty the abnormal development which it has received and the consequent dwarfing of the thinking powers from imperfect teaching such as all of us do to some extent, and the difficulty is greatly increased. It is no answer to say that it must be easy for scholars to think because it is natural for them to do so. It is natural for children to walk or to run but it is no easy task for them to gain these accomplishments, much inferior as they are to the almost divine attribute of thought.

To enter upon the main subject of my paper: "How may language study be made a better training for the thinking powers." I reply, first:

By more rigidly testing that thought training which we already attempt and by increasing it in amount.

We take pride in the fact that we are training our scholars to read at sight. But are we really *requiring* our scholars to read at sight in our final examinations in the authors which they have read. The passing mark in our school at Newport is seventy on a scale of one hundred. Now suppose I make an examination paper of which seventy per cent is made up of translation of passages read in the class and of questions upon construction and subject matter. Thirty per cent of the paper is left for sight reading. A boy with a good memory gets sixty out of a possible seventy on memorized translation and construction, and ten out of a possible thirty on sight reading. He has reached seventy on the whole examination and is of course promoted. Now, have I really required sight reading of that boy? By no means; yet I have in the past made more than one such paper, and the boy is no imaginary personage. I wonder if I am the only one who could make such a confession.

Most of our colleges require some sight and some prepared work. In order to estimate the worth of the examination in Virgil, for instance, it is necessary to know which counts for more, the prepared or the sight reading. If unusual proficiency in the prepared or memory work is allowed to make up for deficiency in the sight or real thought work, how can we say that sight reading is really required in such a college?

In the entrance examinations at Harvard all the Greek and Latin is at sight. This is as it should be, but what per cent is required on such an examination? If it is no more than fifty, it seems to me that the standard is not such as to assure successful thought training. A fifty per cent knowledge of any subject is not a practical, efficient knowledge of it. If we refuse to employ fifty per cent carpenters, doctors or engineers, why should we allow fifty per cent linguists to consider themselves fitted for advanced work? There is too much of this asking for thought but not requiring it. Such a course may do for the brighter and more eager-minded, but there are many boys who will memorize enough to secure promotion and slight the thought work if they see you do not require it.

For myself, I was unable to give more than thirty or forty of sight work on my Cæsar paper, because the time given to Cæsar, three-fourths of a year, in the required course, was insufficient to do more. The difficulty has been met in part by lengthening the course in this author to one year, and last June I was able to give seventy per cent of my paper on sight reading and construction with good results. Although this made it necessary to decrease the number of required authors from three to two, I feel that the increased ability to do real work in translating the two is worth more than memorizing portions of three.

I have always based my Latin composition on the text which the class was reading, making drill sentences by putting the words and constructions of the text into new combinations. During the first year of my Latin teaching I used to send about ten scholars to the board with the English of these sentences, and after they had been written, I went over them, correcting and explaining carefully. In my desire to make the work as thorough as possible I sometimes used the same set of sentences five or six times with the same class. It took me some time to discover that a considerable number of the class were simply committing these sentences to memory and were just as helpless in writing others involving precisely the same principles as they were in the beginning.

This is the great difficulty in the use of books on composition. The sentences are committed to memory but the principles are not mastered. I try to meet it in this way. One or two sentences based on the text are placed before the class on the board and they are required to write them at sight as a five or seven minute exercise. These exercises are passed in, corrected and handed back with full explanation of the mistakes made. Two such exercises are given a week, the sentences each time being new, but the principles many times repeated. I never give any but sight composition in an examination.

But thought processes may be employed in directions where they are not now thoroughly and consistently used, for instance, in learning the rules of grammar. In all our Latin grammars we find the rule stated before any facts are given to support its truth, and this rule is very often—shall I say generally?—memorized, or at least assented to, before the examples are looked at. If grammar is, as is now generally agreed, simply a concise statement of the facts of language, the grammarian certainly ought to present his facts before he asks us to believe the rule based upon them. The learner cannot, it is true, collect the facts of the language or group them under appropriate heads, but he may, when the grammarian has presented an example *representative* of a class of facts, by a gradual process arrive at the principle which governs this class. He must take the grammarian's word for the *representative* character of the fact presented, but if this is once granted he may learn much for himself. By a series of questions directed to the example he may be helped to observe the facts before him and to arrive at the rule for himself.

Four years ago Mr. Tetlow, of Boston, published an introductory Latin book, called "Inductive Lessons in Latin," as an attempt to show the true method of teaching the principles of Latin grammar. This book is a careful, scholarly manual for beginners, and a valuable contribution to pedagogical science. To illustrate his method I take the development of one of the rules of syntax—that for the infinitive in Indirect Discourse. Here I find four examples of the infinitive with subject accusative after verbs of saying and thinking, and just under them, beneath the heading, "Observation and Inference."

> "Note that in each of the foregoing examples the leading verb has for its object a clause whose verb is in the infinitive and whose subject is in the accusative. Note further that *intellexit* is a verb of knowing, *existimabat* a verb of thinking, *respondit* a verb of telling and *sentiebat* a verb of perceiving. What classes of verbs, then, take the infinitive with subject accusative as object?"

He then refers to the rule in the grammar for verification and exact statement. Greatly in advance of the old way as this method is, it seems to me wrong in telling the pupil what he may better learn for himself. I have been accustomed for several years to develop this rule about as follows: I put on the board before my class the direct and indirect form of a sentence as follows:

(*1.*) *Romani pugnant.*

(2.) *Dicit* / *Putat* } *Romanos pugnare.*

He says / He thinks } that the Romans are fighting.

What Latin word in (2) means "he says," what "he thinks," what means "Romans," what "are fighting"?

What means "that"? what mode is used after *dicit* and *putat?*

How would you translate *pugnare* if it stood by itself and like what mode is it translated here? In what case is its subject?

All verbs of saying and thinking in the widest sense of those terms are like *putat* and *dicit* with respect to any statement of fact quoted after them. What four statements can be made about the clause after such verbs? Observe carefully these questions and compare them with Mr. Tetlow's "Observation and Inference," so called. Is it a fair statement that everything which Mr. Tetlow has told the scholars outright has been developed by the series of questions through the scholar's own observation and inference? Have we not further brought out the very important facts, untouched by Mr. Tetlow, that the infinitive in such clauses is translated like the indicative and that the English word "that" after verbs of saying, has no equivalent in Latin? It may be objected that it is hardly fair to say that Mr. Tetlow has "told" the scholar, inasmuch as he has directed him to observe the facts for himself, and it may be readily admitted that his method is far superior to the ordinary one, but let any watchful teacher tell us what proportion of any ordinary class of beginners will make the observations for themselves when they are already printed as plainly as white paper and black ink can make them right under their eyes. It is safe to say that at least one-half of the class will, as a rule, commit to memory these "Observations" so conveniently supplied. I repeat, a mental, like a physical force, follows the line of least resistance, or to borrow the words of another: "We are all as lazy as we are allowed to be." Even if the scholar does verify the observations already given by looking at the sentences, his thought is only assentive or receptive and is not at all to be compared to the independent constructive thought which the questions require.

The knowledge of a rule which a pupil will get from the ordinary treatment in our grammars may be compared to that obtained by looking at the frame of a house already raised, that to be secured by Mr. Tetlow's method of calling attention to certain facts which are stated is like watching a man put together the timbers, but the true, thorough-going inductive method is like putting together timbers one's self. These timbers in the form of representative sentences, must, however, be supplied to the beginner, just as building blocks are to a child. Or to use another parallel, the old method is like the old text-book method in physical science, Mr. Tetlow's is like the more recent lecture illustrated by experiments, but the true inductive method is like laboratory study.

Let us try, as another example to make the matter clearer, the development of the rule for the ablative of means: *Victoriā animos Romanorum confirmavit.*

In this sentence every principle except that involved in the use of *victoriā* has been thoroughly mastered. The final *a* in *victoria* is marked long. Translate the last three words of this sentence. In what case is *victoria?* What translations of this case are suggested in your paradigms? Which of these is most appropriate here? What does the noun *victoria* tell you in regard to the action expressed by the verb *confirmavit?* Answer this as definitely as possible.

Mr. Tetlow gives five examples to develop this rule and then says in his "observation and inference":—"Note in the foregoing examples that the substantives which designate the means or instrument by which the action expressed by the verb is performed are in the ablative. Frame a rule for the case of substantives denoting means or instrument." The ablatives in the sentences are *frumento, fumo, armis, copulis, vallo* and *fossa*, i. e., out of six nouns concerning which the pupil is directed to observe that they are in the ablative, five might, as far as their form is concerned, be in the dative. The lesson which Mr. Jones in his "First Lessons" gives to the ablative of means does not contain a single ablative which might not also be a dative. Is it a wonder that under such circumstances the uses of the dative and the ablative should be confused? If we tell our scholars to observe, we must give them clear and unmistakable facts from which to derive their principles.

I have been trying in my own classes to use such questions as I have described in helping my scholars to arrive for themselves at rules. My efforts have been very crude and imperfect, and I hope to correct and improve them from the criticisms of other teachers. One defect has been the oral and somewhat extempore character of these inductive exercises. If the example and questions had been printed in a book so that all would have had a day or more to think them over, much class-room time would have been saved and the slower students would have had a better chance. An elementary Latin book of a strictly inductive character by a competent man ought to find a ready reception. Such a book is now being edited, I understand, by Professor Harper, of Yale university, whose application of the inductive method to Hebrew has revolutionized the study of that language in this country. At present the best example of a strictly inductive method, in any school text-book of which I know anything, is offered by Miss Sheldon's "General History." This book is based upon the idea that the essential representative facts of history should alone be presented to the beginner and that these may be interpreted by the pupil himself. To aid him in doing this, there is given a series of questions similar in character to those I have used in developing the rules. I have used the book for almost a year with a college history class with constant pleasure, and this use has convinced me that the same method may be applied to language teaching.

Leaving now the elementary work on first principles, let us see if the vocabularies of our school editions of the classics are so constructed as to require thought in their use. Let us turn in the best vocabulary of Vergil yet published to the word *res*. We find half a column devoted to the word. Immediately under it are the following definitions :—" A thing, a matter, an event, an affair, a circumstance, an exploit, an enterprise, an undertaking, a state of things"—then follow sixteen different special uses of *res*, most of which could be readily inferred by the aid of a question or two. As it is, when the pupil meets one of these special phrases he turns at once to his vocabulary, if he is an earnest boy, and runs his finger down the column till he finds it translated. Then he memorizes this translation, and every chance of a thought translation is cut off. It is perfectly impossible to mention every shade of meaning which *res* has, even in very ordinary reading, and this must be recognized by the student if he is to translate it intelligently. The large number of words given, however, leads the pupil to think that the list is exhaustive and he will look up *res* a hundred times rather than infer from his context. How would this do as a substitute for the above definition : "*res* :—thing in the widest sense of that word." In the words of Pott's Latin composition, "*res* is, so to say, a blank cheque to be filled up from the context to the requisite amount of meaning;" then might follow two or three of the less obvious meanings like that of "*res familiaris*." With such a definition the boy is thrown on his own resources and understands that he is. In general it is quite sufficient to give the root meaning of the word with one or two questions to suggest the directions in which the meanings spread from this root. The lexicon as a court of last resort should give us all the shades of meaning but the vocabulary should have a distinct pedagogical purpose, and therefore should not do for a pupil what he can better do for himself. To illustrate further, the phrase "*quo numine laeso*" in the eighth line of the first book of the Æneid is kindly or unkindly translated in the notes of our Vergil "what purpose having been thwarted." The average boy translates it so with no thought or care as to the root meaning of "*laedĕre*" of which the participle is "*laeso*." When the verb occurs in the 112th line of the same book in the compound *inlidit* and is used, with its exact root meaning, the boy is perfectly helpless and looks up the word again. Suppose we treat the word in this way in a vocabulary : *laedo, laedere, laesi, laesum*, to strike, what would be some of its figurative meanings? What, judging from *caedĕre, concidĕre* which we have had would be its form in composition?" Now when we come to "*quo numine laeso*" let us insist in the first instance on the literal translation "what divine purpose being struck." That is all right, tell the class, but it is in the rough, let us smooth it a little. *Numen* is an abstract term, in this respect like our English word hope. Now, what words denoting physical action, with a meaning similar to that of the verb strike, are used with the English word "hope"? The class will at once contribute such words as shatter, crush, break, dash, thwart, stagger, blight, blast. I tried just this plan in my class yesterday and received contributions from many members of the class with the interested attention of all. After this process you may ask "which of these meanings is most appropriate here?"

For one more example take "*condo, condĕre, condidi, conditum, con (cum) dĕre*, to put, when would it mean to found, when to build, when to compose, when to store, when to hide?" By these questions I should hope to show the pupil that the exact meaning of *condĕre* depends upon the materials put together or the way in which they are put together.

But it may be asked, is not the sight reading which is being so generally adopted enough to secure good thought? I think not and for two reasons.

First, while in the construction of sentences we are constantly using the rules, these rules, not having been inductively acquired, are not thoroughly understood, and the consequence is that the pupil, in trying to apply a rule which he understands imperfectly, makes many mistakes. Secondly, the effect of the memory work, which is all our grammar and vocabulary really provide for, is to undo constantly all that we can do toward establishing a habit of thought in sight reading.

If it is your practice to wind your watch before retiring and for some reason you are prevented from doing so for two nights only, the chances are that you will forget it on the third. So in maintaining a habit of thought in a pupil, it is not enough that your methods are rational in many instances, the least deviation from rational methods is sure to be felt while the laws of thought remain the inexorable things they are. Now, I suppose the grammar and vocabulary work is a very considerable part of the pupil's total expenditure of energy, so that it is impossible to realize the best results while the pupil is constantly using existing grammars and vocabularies.

The third answer of this paper to the question which constitutes the title is:

By supplying thought materials more definitely and thoroughly. These thought materials in language study are: (1) inflections, (2) the rules of construction, and (3) the words of the language. The first two mentioned are already pretty well supplied in the best schools, but it is not unfair to say that the average Latin student is wofully deficient in a knowledge of root words and root meanings as well as in power to apply them. The desirability of sight reading has long been recognized, but we are not yet supplied with the best material to assist us in teaching it. A thoroughly good vocabulary is part of such material.

Many of our introductory books have altogether too many words in single vocabularies and in the the books. From my experience, I judge four hundred or at most five hundred words to be the largest number which can be learned and used by an ordinary class of beginners during the first year, *provided* they are thoroughly mastered and used. Mr. White, in his Greek Lessons, has done well in giving uniformly eight words to a lesson for fifty lessons, thus giving in all four hundred very common Xenophontic words in the whole book. There is a great advantage in having the words of Cæsar used during the first year's Latin. A basis is thus given for the second year's reading and the time saved from learning words may be given to the construction of the author.

This systematic study of words must be carried much further than it now is if we are to make a thorough success of sight reading. Why should not just such lists of words as we now have for Cæsar in such introductory books as Jones's, be provided for Cicero and Vergil? Much of the prevailing vagueness among pupils as to the meaning of words in these authors is due to the absence of them. This fact is being realized by many teachers During the last year a book has appeared called "Latin Word Building," by Professor Gates, of Adelphi Academy, Brooklyn, which provides for the systematic study of the most important root words of Cæsar and Cicero.

I have so felt the need of something of the kind for Vergil that this fall I am preparing a vocabulary for the use of my class of twenty-three which is beginning Vergil, after having read Cæsar. It includes the common Vergilian words not often found in Cæsar in the order of their occurrence in the first book of Vergil. I have already drawn some illustrations from this vocabulary. Its peculiar features are:

(1.) The giving of the root meaning only with an effort to suggest the others by questions.

(2.) An inductive development of the force of the endings.

(3.) The grouping of words similar in meaning or form to secure discrimination in their use. I have printed these words with a cyclostyle for the use of my class and, when they are reading, they can look up words in the order of occurrence on the sheet before them. The looking out of the new words in the first book of Vergil in a vocabulary at the end of the book is ordinarily no small amount of drudgery to a beginner. These lists are learned with as much thoroughness as the vocabularies of Cæsar in the introductory book were. My experiment, though very poorly carried out on my part, seems to suit the class and to secure good results.

In this discussion it will be noticed that the use of definite written or printed questions is advocated. The art of questioning is certainly one of the most difficult for the teacher to acquire and when the questions are intended to excite and develop a thought, they are much more difficult to frame than when one is trying to call into a pupil's memory a fact. It seems therefore wise to secure that accuracy which writing proverbially gives. It is surprising that the practice of writing out questions beforehand has not been more extensively adopted by teachers. Professor Hale in his "Art of Reading Latin" has given us several series of very skilful questions, which he tells us were prepared in manuscript, to develop the meaning of Latin sentences by a thoroughly rational process. They are well worth the careful study of earnest teachers.

To review the discussion. The question "How may language study be made a better training for the thinking powers?" has been thus answered :—

I. By more rigidly testing and increasing in amount that thought training which we already attempt.

II. By applying thought training in new directions—(1) to learning rules, (2) to learning vocabularies.

III. By supplying thought materials more definitely and thoroughly.

IV. By prepared written questions.

I have drawn freely upon my own experience and for this I think I need not apologize. I have not done so in a boastful spirit but to describe my own questions and perplexities and the imperfect solution I am attempting, for comparison with other questions and solutions on the same points. I have presented these questions in order to secure help in answering them, and these solutions, such as they are, are offered for criticism.

Although illustrations for this discussion have been drawn almost entirely from Latin, of which the writer is a teacher, it will be seen that the principles stated apply with equal force to all languages. The rules of English grammar may certainly be developed, in part, inductively, and no finer work could be attempted than the systematic study of the vocabulary of some English literary masterpiece.

FREE TEXT-BOOKS IN UPPER SCHOOLS.

Probably no state that has enacted a free text-book law has gone so far as actually to *give* the pupils the books to be used in school. It simply *loans* the books for the school term, takes them back when the term ends, and gives them out again when the next term begins. When the pupil finally leaves school, he has only the memory of his books to carry with him; the books themselves he leaves behind and never sees again.

Thus it constantly happens in high schools under the free text-book law that pupils showing forgetfulness of the elements of arithmetic and geography are directed by thoughtless teachers to investigate these subjects afresh, when such investigation has become impossible because the books are no longer accessible. Certain elementary studies practically never cease during the entire school life of the pupil. Even adults have frequent need to recur to the books studied in their earliest years. But a free text-book law assumes that the books will no longer be in request when the term has ended. The further a pupil advances in his school life and the greater the number of completed studies he leaves behind him, the more he comes to miss that little accumulation of books which, if he had it, would be a constant reminder of work already done and a ready means of satisfying the desires of his ripening mind for fuller understanding of principles once learned in the rudiments but now coming to application in forms that require review. The books of the child are to the youth the "home-born tie" that gives unity to his school years. The free text-book law constantly severs the chain of association in the child's life and so strikes out of this life one little element of its possible poetry.

It will not do to insist that school books are, from a literary point of view, worthless, and that they are made by money-making publishers and introduced under the solicitation of unscrupulous and ill-mannered agents. We wish this were not so; but the assertion has no relevancy to the attitude towards his books occupied by the child. A book good enough for the child during the school term is good enough for him to possess and care for during vacation, and for him to own permanently when his school days are over. By whatever arts the agent effected the adoption of the book by the school authorities, the relation of the child to the book is one of absolute simplicity, and, according to his conscience and temperament, becomes at last one of affection and respect.

In the high school may be seen youth reading Homer and Virgil, Irving, Addison, Scott, Milton, Shakespeare and Chaucer, Goethe and Schiller, Racine and La Fontaine. These books, with all the dictionaries and grammars used in connection with them, must be returned at the end of the term. They must not be read during vacation. Whatever memories of these classics may be carried away, the outward sign and aid of these memories, the books themselves, must be left behind. No pencil marks must be made in the books. The pupil's copy acquires no individuality akin to his tastes, and must bear no evidence that his eyes have lingered over its pages and that his mind has busied itself with its contents. When at last he becomes able to purchase for himself a copy of a school classic, if indeed his love for it survive till then, he finds no visible links of association with the time of his earliest study, but must begin anew. A wisely ordered plan of education will utilize to the utmost the power of association. The habit of individual ownership of the books read in school is the foundation of other good traits of character. If the state furnishes the teaching and the school buildings, it may well leave to the individual so much of responsibility as is involved in the procuring and keeping of the school books.

FRANKLIN'S IDEA OF AN ACADEMY.

From *Benjamin Franklin as a man of letters* by John Bach McMaster we excerpt the following account of Franklin's participation in the founding of a school of upper, or academic, grade in Philadelphia.

"He was now without doubt the most popular man in town. And while this run of popularity lasted he determined to start his long-cherished scheme of an academy. His notions of what an academy should be were hastily gathered, a pamphlet written, and the subscribers to the "Gazette" surprised, on unfolding their newspapers one day in 1749, to find the pamphlet inside. The title was: 'Proposals relating to the education of youth in Pensilvania.'"

"The 'Advertisement to the Reader' set forth that some gentlemen of public spirit were about to form a plan for educating youth, and called on all who had advice to give as to the parts of learning that should be taught, the order in which they should be taught, or the method of teaching, to send it without loss of time to B. Franklin, printer. The house for the academy, the hints suggested, should be on a spot high and dry, and hard by the bank of a river. Without should be gardens and orchards, meadows and fields. Within should be maps of every land, globes, mathematical instruments, prints, and drawings of buildings and machines. The scholars were to eat together, plainly, temperately, and frugally; were to wear a livery of some sort, that their behavior might the better be seen; were to be taught to write a fair hand swiftly, and to learn something of arithmetic, of accounts, of drawing, of the first principles of geometry and astronomy, and of the first principles of perspective. To better their English, they were to read Tillotson and Addison and Pope, Algernon Sidney, and Cato's Letters."

"Could he have had his own way, neither Latin nor Greek would have had a place in the scheme. But the men to whom he looked for support insisted that they should, and with an ill grace he put them in. Not a grammar, however, was to be touched till the lads had been made eager to study the classics. To make them eager they were to be to told that Latin and Greek were the most expressive, the most copious, the most beautiful, of languages; that the finest writings, the most perfect productions of wit and wisdom, were in Latin and Greek; that to render them in English was impossible; that these languages contained all science; that Latin was the language of the learned in all lands, and that to understand it was a distinguishing ornament."

"This was the great principle that underlay his plan; nothing should be taught till the scholars were impatient to learn it. There should be no logic till by debating they began to feel the need of logic. There should be no mechanics taught till the story of the marvelous machines used in the arts, in manufactures, in war, had aroused a desire to know something of the mechanical principles by which such wonders were accomplished. There should be no oratory till the study of history had filled them with admiration of the great things done by the masters of oratory. There should be no geography till a knowledge of past events awakened a longing to know the bounds, the situations, the exact extent of the countries wherein such events had taken place."

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"Nourished by subscriptions, lotteries, and gifts, the Academy and Charitable School of the Province of Pennsylvania flourished greatly, became in time the Philadelphia College, and then the University of Pennsylvania. But the 'Idea' of Franklin was never followed. Year by year the Latin School was fostered; year by year the English School languished, till it fell so far into decay that the trustees endeavored to abolish it. But the charter would not allow them, and the school dragged on a wretched existence. Against this stupid attachment to the classics Franklin protested, a few months before his death, in a pamphlet called 'Observations Relative to the Intentions of the Original Founders of the Academy in Philadelphia.'"

INTERCHANGE.

Communications upon any educational topic may be addressed to G. R. CUTTING, LAKE FOREST, ILLINOIS.

COLLEGE PREPARATORY LATIN.

Some principals of prominent boys' preparatory schools knock this month at the door of INTERCHANGE and inquire "What kind of a preparation in Latin shall we give our boys who are going to college."

The burden of their complaint may fairly be summarized as follows: "The doctors disagree. Professor E. P. Morris of Williams college has told us in THE ACADEMY and, more recently, in his recent monograph "*The study of Latin in the Preparatory Course*" that "The study of Latin is now the study of the Science of Latin Philology" and Professor Morris implies that progressive preparatory schools must hereafter give prominence to this branch of the study of Latin." "Professor W. G. Hale of Cornell University," they add, "tells us in THE ACADEMY and in 'The Art of Reading Latin' that 'to learn to read Greek and Latin with speed and relish, and then, if one's tastes turn towards literature or art of any kind, to proceed to do so; to come to know familiarly and lovingly that great factor in the record of the thinking and feeling of the human race, the literatures of Greece and Rome,—that is an aim which we should all set before our students.'"

"The great mass of the Latin teachers in preparatory schools," the inquiring principals maintain, "are still drilling in Latin grammar, parsing, syntax, etc., 'after the ways of our fathers.'"

They summon to their defence the college catalogues, and say: "we can only follow when the colleges agree in their demands. Professor Hale would be our Scylla; Professor Morris, our

Charybdis." We are asked to demonstrate the correctness of their views by a reference to the college catalogues. So we take down our latest catalogues (1886–7) of seven of the leading colleges and present in INTERCHANGE a bird's eye view of the present college requirements in Latin.

Harvard University :

Elementary.—The translation at sight of simple prose (with questions on the usual forms and ordinary constructions of the language).

Advanced.—The translation at sight of average passages from Cicero and Virgil (with questions on the usual forms and ordinary construction of the language and on prosody).

Latin Composition.—The translation into Latin of a passage of connected English narrative, based upon some portion of Nepos's Lives of Miltiades, Themistocles, Alcibiades, Epaminondas, and Hannibal.

Yale University :

1. Latin Grammar.
2. Cæsar—Gallic War, books i–iv.
3. Cicero—Orations against Catiline and for Archias ; and, in addition, either the Marcellus and the 14th Philippic, or the Milo, or the Manilian Law, or the Cato Major.
4. Vergil—Bucolics, and first six books of the Aeneid, including Prosody.
5. Ovid—Metamorphoses, translation at sight.
6. The translation, at sight, of passages from prose Latin.
7. The translation into Latin of connected passages of English prose. [As special importance is given to this part of the examination, it is suggested to teachers that they connect exercises in making Latin, both oral and written, with all the Latin studies of the preparatory course.]
8. Roman History : Creighton's Primer of Roman History is suggested, as a basis for instruction.

Cornell University :

In *Latin*, candidates are examined (1) in the following authors, with questions on subject-matter, constructions, and the formation and inflection of words : Cæsar, four books of the Gallic war, Virgil, the Eclogues and six books of the Æneid, with the prosody, Cicero, six Orations, including the four against Catiline ; (2) in the translation at sight of passages of average difficulty from Cæsar and Cicero ; and (3) in the translation into Latin of a piece of connected English based upon the principles and vocabulary contained in the first forty lessons of Allen's Introduction to Latin Composition. Teachers who are preparing students in Latin for the University should aim to fit them to be admitted to course 4.

[The purpose of this course, which is open to students who have given evidence at the entrance examinations of more than average knowledge and ability, is to prepare such students to read ordinary Latin with ease and speed. A methodical study of the structure of the Latin sentence, in connection with grammar, is made in the class-room, and a written exercise in translating at first hearing, with formal questions set for written answers at one point after another in the progress of the sentence, is given weekly by Professor Hale, the aim being to lead the student to grasp the thought in the order in which the Roman sentence develops it, with the final result of his gaining power to read continuous pages of Latin of moderate difficulty, and understand, without translating, as he reads.]

Princeton College :

Latin Grammar : especially the inflections ; the simple rules for composition and derivation of words ; syntax of cases and verbs and structure of the sentence in general, with particular regard to relative and conditional sentences, indirect discourse and the subjunctive ; so much prosody as relates to accent, quantity, versification in general, and dactylic hexameter. Cæsar (five books of the Commentaries); Sallust (Catiline or Jugurtha); Virgil (six books of Æneid); Cicero's Select Orations (six); Arnold's Latin Prose Composition (twelve chapters), or Jones' Exercises in Latin Prose ; Geography of Ancient Italy.

University of Michigan :

Grammar.—A thorough preparation in the elements. For this purpose Harkness's, or Allen and Greenough's Grammar, is recommended.

Prose Composition.—Jones's Exercises in Latin Prose Composition; or Harkness's Introduction to Latin Composition, from page 50 to page 166 ; or forty-four exercises in Arnold's Latin Prose Composition.

Reading.—Four books of Cæsar's Commentaries ; six select Orations of Cicero ; and the whole of the Æneid ; for the last six books of the Æneid all the Eclogues and Georgics may be substituted ; for the last four, all the Eclogues ; for the last two, 1,200 lines of Ovid.

The study of the first six books of the Æneid should be accompanied with the study of Prosody. In reading the last six books the principal aim should be to acquire facility in translation, and increased knowledge of the Latin vocabulary. It is supposed that the student, already familiar with the style of Vergil, will be able to read this portion of the Æneid more easily and rapidly than an equal amount in any other text-book.

Four years, if possible, should be given to the above preparatory course in Latin.

Amherst College :

(1) Cæsar's *Gallic War*, Books I.–IV., or an equivalent amount of Cæsar's *Civil War*, Cornelius Nepos, or Sallust ; Cicero's *Orations against Catiline* and *for Archias*, with questions on the subject-matter and on grammar ; Virgil's *Æneid*, Books I.–VI. (or *Eclogues* and *Æneid*, Books I.–V.), with questions on the subject-matter and on prosody.

(2) Translation at sight of average passages from Cæsar, Cicero's *Orations* the *Æneid*, and Ovid's *Metamorphoses*, with general questions on grammar, prosody, history, and antiquities suggested by the prescribed passages.

(3) Translation into Latin of a passage of connected English narrative based upon some portion of the prescribed prose.

Williams College :

Grammar, Allen and Greenough's or Harkness's ; translation of simple sentences into Latin prose ; Cæsar, four books ; Cicero, seven orations ; Virgil, the Bucolics and eight books of the Æneid ; translation at sight of passages from easy Latin prose.

These collated demands of the colleges must show to the inquiring principals that the current is strongly setting toward "the reading of Latin"; for while prescribed courses still stand in each of the catalogues, except in that of Harvard, the increased requirements in the amount of Latin required in all of these colleges over the demands of a few years ago, and the facility demanded in sight reading conclusively show that the trend in Latin study is away from "the methods of the fathers." What these seven leading colleges demand are forcible "indications." As a sequel to this, a subsequent INTERCHANGE will show what seven of the leading college preparatory schools are actually doing in their teaching of Latin.

COMMUNICATIONS.

MUST CAESAR GO?

To the Editor of THE ACADEMY:

Will you allow me to say that I was much interested in Principal Keyser's article on Cæsar as a first Latin classic. It certainly contains what oft was thought if not so oft expressed. We have for some time been thoroughly dissatisfied with Cæsar, both because the style is too difficult for beginners, and because so much of the subject matter relates to military affairs, the reading of which is of little or no profit to boys, and particularly distasteful to girls.

As we have our own preparatory department like most Western Colleges, we decided last year that Cæsar must go and that our beginning class in Latin would read Lhomond's *Viri Illustres*. This, with some sight reading from Nepos and Cæsar, makes a very good introduction to Cicero. How the world repeats itself in a matter of this kind may be seen from Professor Lhomond's preface to his *Viri* written more than a century ago. It begins, "On se plaint depuis longtemps que les auteurs latins manquent pour la sixième." He goes on to say that young people need facts and such facts as will interest them; that Roman history is a rich mine of such facts, that he has filled his book with deeds of valor, of clemency; of greatness of soul, because such things are interesting. He claims that while drawing his matter directly from the Roman historians, he has sometimes shortened their sentences, and occasionally changed their order of words, but that the purity of their Latin has not suffered at his hands. He believes that his abridgment contains nothing which Livy, Valerius Maximus, Florus, etc., might not consistently have written. While our beginners in Latin reading do not correspond exactly to the French "sixième," the difference is not so great that matter suitable for one will not answer very well for both.

If we had an American, or even English, edition as carefully gotten up as that of Holzer, of which the nineteenth is before me, I believe we should have a book for beginners that would be about all that is desired. This, I think, should be succeeded by Nepos; and if as attractive a volume as that prepared by Erbe were accessible we should be provided with Latin books that would introduce the pupil to Cicero and Vergil in a much more agreeable and profitable way than the *De Bello Gallico.*

Much of the talk about the importance of putting only pure Latin writers into the hands of beginners is so puerile and irrelevant that I wonder sensible men still indulge in it now and then. For my own part I do not hesitate to say that the books above commended seem to me much better suited for beginners than any others that I know, notwithstanding the fact that I lay myself liable to be charged with "mediaevalism."

CHAS. W. SUPER.

President's Office, Ohio University, Nov. 1887.

To the Editor of THE ACADEMY :

The ACADEMY ought not to be used as a medium for indiscriminate discussion. But some thoughts in Principal MacDonald's article on The Study of Latin (Nov. issue) will, it seems to me, profitably bear notice. He joins issue with Prof. Morris for maintaining that the chief reason for the study of Latin is the philological one. Of course, any method, in the hands of an earnest teacher, will be profitable. But it seems to me that Principal MacDonald does less than justice to the Philology. He says: "To entitle a science to a place in popular education, its principles and products should be so closely adherent to the every day life of the masses, that a working knowledge of it has become a practical necessity to all."

Now, surely, the laws of political and social development, the principles of sociology, are thus closely adherent. But sociological conditions can be best appreciated by the comparative study of early customs; and of these, in turn, much is to be learned from comparative Philology. In fact, Philology is our main source of information of human life "before the dawn of history." Is it not, then, more than merely one of the "fascinating subjects of investigation"? Politics and religion are, perhaps, the subjects with which men chiefly concern themselves, outside of their regular vocations. Much of the early history and progress of both may, I think, be learned from the study of Philology. And I know at least one school—and a famous one—where some valuable ideas in this line have been developed in the pupils' minds.

Further on, (p. 351), the author excellently describes a linguist as one who has "a ready ability to express himself himself correctly, not only as to grammar, but as to the choice of words and the delicate effects of arrangement." I should differ from the writer in maintaining that this very ability to express one's self, which Principal MacDonald rightly considers one of the main objects of studying Latin,—in short, precision, brevity, and elegance of expression—is the direct result of studying philologically. To discover in Latin or Greek the root of an English word, to fix the primitive meaning, to trace it through its modifications of meaning in each language, from concrete to abstract, from literal to figurative; to discriminate between the various shades of meaning and so to learn to adapt each to its precise use;—all this is training in method of expression, but in a philological way. This is what I have understood Prof. Morris to mean by studying Latin philologically. The method may be applied to syntax as well as to etymology, and is additionally valuable, as I intimated before, for the incidental light thrown on the primitive life of our Aryan ancestors and their descendents. The method trains to habits of nice discrimination, develops the power of logical analysis, and induces accuracy of observation, thought and expression, while incidentally enlarging the pupil's vocabulary.

In conclusion, while I think that Prof. Morris is right, I have noted my exceptions to Principal MacDonald's views only because the excellence of his article will give it a weight that we who take the other view would wish to modify. I have read it myself with profit.

DAVID KINLEY, Principal.

Johnson High School.
North Andover, Mass., Nov. 25, 1887.

Editor of THE ACADEMY:

It pleases me very much to see that in the Oriental Seminary connected with the University of Berlin which has just been opened and which is for teaching the Chinese, Japanese, Hindustanee, Arabic, Persian, Turkish and Suaheli languages, *all theoretical* instruction is to be given by *German teachers*, the practical exercises only being left to native teachers.

This proves that the German University holds the same theory which I laid down in my article on teaching French and which I have carried into practice so audaciously for several years.

ANNA C. BRACKETT.

9 West 39th Street, New York, Nov. 27, 1887.

NOTES.

THE ACADEMY *is mailed to all subscribers promptly on the first of the month. Subscribers should inform us if it is not received within two days of the time when it ordinarily reaches them.*

We have received a copy of a book which purports to be one of a series issued by the educational authorities of the State of Connecticut for use in the public schools. If this book be a sample of what State control of text-books will bring about, happy are the states where such control does not exist. We do not know that it is worse than some of the text-books heretofore published by private enterprise, but we know of no firm now engaged in the publication of school text-books who would venture to publish such a book.

We offer no apology for giving space this month to Gen. Walker's paper on Arithmetic in the Boston Schools. The relation between the common and secondary schools in certain directions is so intimate as to make their interests practically identical. We have often protested against the prominence which arithmetic usurps in the ordinary school curriculum. Viewed from the practical side the advantages derived from the work are so meagre as scarcely to be worth considering. No business man places a high estimate on the practical knowledge of arithmetic gained in school. For the ordinary purposes of life pupils do not need the special applications which have been introduced into our text-books in arithmetic, and for the special vocations where this knowledge is indispensable, the amount obtained in school is always inadequate. For many years the tendency seems everywhere to have been to put more and more into our school courses. It is a hopeful sign of progress that one school board at least has decided to take something out.

The annual catalogue of Harvard University has appeared. Last year the total number of students in the university reached 1688. This year the number is 1812. Of this total, 1138 are in college as compared with 1077 last year. Other departments which have gained are the law school with 215, the scientific school with 20, the dental school with 32, the school of veterinary medicine with 26, the graduate department with 96, a gain of 26 over last year. The only departments to show a loss are the medical school, which loses 8, the divinity school, which loses 4, and the Bussey Institute, which loses 1. The summer courses in chemistry, botany, geology and physical training account for 150 more against seventy for last year. The University chapel has been added as a separate feature of the catalogue, with a list of the preachers to the university, a brief account of the services held during the year and a number of the clergymen who have filled the pulpit of Appleton Chapel on Sunday evenings. The Episcopal Theological school, which, though not a part of the university, has for years been accorded a place in the college catalogue, now loses any semi-official recognition at the hands of the university. Another new feature is a list of all persons who obtained degrees at commencement, including all the members of the senior class. The thirty-eight men who received the degree of LL. D. at the anniversary celebration a year ago are given also.

The Germans are rapidly developing a system of evening continuation classes which carry on education for two or three years longer. In Saxony the boys who leave the primary school, if they do not go to the higher schools, must attend for three years longer—say, until they are seventeen—continuation classes for at least five hours per week. But teaching is provided for them, and they are encouraged to attend twelve hours per week. So complete is this system that even the waiters at the hotels up to the age of seventeen attend afternoon classes, and are taught one or two foreign languages. I take Saxony as one of the most advanced States, but the law is much the same in Würtemberg and Baden, and the system is found to work so well that it is in contemplation to extend it to all the States in the German Empire, and Austria will probably follow suit. This is confidently expected to happen in the course of 1888. I may state as an undoubted fact that in Germany and Switzerland, and I believe in some other continental countries, the opinion is ripening into a conviction that the education, even of the poorest class, should be continued in some form or another to the age of sixteen or seventeen. They find by experience that wherever this is adopted it gives an enormous advantage to the people in the competition of life, and, above all, trains them to habits of industry and mental application. I believe it is owing to this system of thorough education that Germany has almost extinguished the pauper and semi-pauper class which is the bane and disgrace of our country.—*The London Times.*

The *Journal of Education*, London, refers to a conference called in November, by the London Chamber of Commerce, to discuss the subject of Commercial Education. Sir John Lubbock "struck a new and a true note, when he prophesied that, by bringing education more closely into connection with the practical requirements of life, we shall give it more interest and more reality; that boys will feel more conscious of its utility, and, by their increased energy, not only reap practical advantage, but gain a higher intellectual training."

According to the *Journal*, "the speech of the day was made by the Headmaster of Rugby. Dr. Perceval is no orator, and the papers gave him a bare dozen lines, but his speech was brimful of matter and hard-headed common sense. The ancient solitary reign of the classics is doomed. We must get rid of the traditional notion that the classics are sacred, and other studies common and profane, the superstitious belief that there is a natural demarcation between liberal studies and practical studies. We cannot say that Latin and Greek as taught in our schools are humanising, and that French and German are not; that to learn the geography of ancient Greece is a liberal training, and to trace out the course of English commerce is not. We must turn our attention to the practical needs of our pupils, and liberalise our practical studies." * * *

"Lastly, there was no royal road to commercial education. The German clerk, who, we were told, swarmed in all our London counting-houses, had not, as a rule, been trained in any special school, but owed his success to the excellence of his general education."

"For £10 a year, five of which are contributed by Government, Mr. Mundella assures us the German youth gets an education 'far and away beyond that of any English public school.'"

The attendance at the Massachusetts Teachers' Association was this year smaller than last. The weather was especially unfavorable, and this doubtless had its effect, though the worst possible weather ought not to be a sufficient excuse for so small a gathering. The papers and discussions in the general meetings were hardly practical enough to command a large attendance from every day teachers. The propositions laid down were such that little dissent was possible, but they were usually the restatement of things well-known to all teachers. One of the speakers on Friday morning summed up his discussion substantially as follows: "There are many subjects that may be taught in school, and it does not much matter what ones we select, provided we make our pupils trained, accurate, intelligent thinkers." It is not easy to dissent from this statement, but on the other hand it is not specially calculated to arouse enthusiasm, and it does not go far towards solving the problem, how to make pupils trained, accurate, and intelligent thinkers. Saturday morning we listened for the best part of an hour to a paper on "Character as an Object of School Education." We remember scarcely a statement in this paper which we could not heartily endorse, but there is no teacher in our acquaintance to whom any one of them would be new. The burden of the hour was the duty of teachers to develop sound moral character in the pupil, and the writer concluded "I will not affront your intelligence by instructing you how this is to be done." We know at least one teacher who would gladly go many thousand miles to have his intelligence affronted in just that way. To make of their pupils intelligent thinkers, and to develop sound moral character is the avowed object of all the earnest teachers whom we know. Most of them not only steadfastly recognize this as the great object of their work, but also are more keenly conscious of their failures than any outsider can possibly be. And still the great question remains, how is this to be done?

The meetings of the sections, so far as we could see, were not open to the criticism just made. In fact, whenever we have met the teachers of Massachusetts either individually or in small companies, they seem fully awake to the practical side of their work. Their questions are keen and to the point. Their discussions invariably come at something definite and tangible, and they do not indulge in platitudes. Perhaps the difficulty lies in the attempt to interest an audience made up from teachers working in several different grades. If this is so, smaller gatherings and higher specialization may be a remedy. There is certainly small value in reiterating what is well known, and ignoring what we are all seeking to learn.

Professor Palmer's Address before the Harvard graduates last summer on "Expenses at Harvard" has been published and copies may be obtained without charge on application to Archibald M. Howe, 25 Congress St., Boston. Although it appears from this address that in special cases young men have completed a four years' course at Cambridge on less than five hundred dollars a year, it is clear that the average expenditure of undergraduates at Harvard is at least double this sum. Our oldest university is clearly a college for rich men's sons, and the education thus obtained is evidently an expensive one. That it may be the best education for those able to afford it we can easily admit. The principal value of Professor Palmer's monograph is that it puts things plainly. There is no attempt to mystify or to present things in a false light. It gives parents an opportunity to see the actual state of things at Cambridge. We fail to see that it is any slur upon an institution to acknowledge that its advantages may be obtained only at large expense. There can be no question that there is a demand for just such an education as Harvard offers at the price for which it is offered. There are, however, many able and ambitious young men of limited means who on mature consideration may well conclude that more may be obtained for their money by a residence at a less expensive University supplemented by two or three years of foreign study and travel. For students of moderate means a residence at Cambridge often implies the formation of expensive habits and acquaintances which will be more apt to hinder than to help them in their subsequent careers.

The magnitude of beneficiary aid at Harvard is very properly emphasized by Professor Palmer. The amount given away last year in helping students was $36,000 to undergraduates, $11,000 in the graduate departments, and $6,000 in the professional schools. The present year the same amount is available and it will be still further increased by $13,000 from the munificent bequest of Mr. Price Greenleaf. The fact that Harvard is the rich men's college should not blind one to the fact noted by Professor Palmer that, outside of certain social sets, poverty is no bar to appreciation among the students. "At the clubs which foster special interests * * * * considerations of money have no place. If the poor man is a man of muscle, the athletic organizations will welcome him; if a man skilled in words, he will be made an editor of the college papers; and if he has the powers that fit him for such a place, the whole body of his classmates will elect him Orator, Ivy Orator, Odist, or Poet, without the slightest regard to whether his purse is full or empty. The poor man, it is true, will not be chosen for ornamental offices, for positions which imply an acquaintance with etiquette, and he may be cut off from intimacy with the frequenters of the ball-room and the opera; but as he will probably have little time or taste for these things, his loss will not be large. In short, if he has anything in him—has he scholarship, brains, wit, companionability, stout moral purpose, or quiet Christian character,—his qualities will find as prompt a recognition at Harvard as anywhere on earth."

The Industrial Education Association, 9 University Place, New York, announces a series of educational monographs for the coming year. The first one will appear in January, and will be entitled "A Plea for the Training of the Hand" by D. C. Gilman, LL. D., of Johns Hopkins University. Eleven monographs are announced, and the names on the whole are a guarantee of the high character of the work. It is proposed to publish six numbers a year, the subscription price being one dollar, single numbers, twenty cents each.

This same association has already begun the publication of educational leaflets, the first of which is now in our hands. It contains a brief statement of the arguments for manual training. Although we cannot subscribe to the opening statement that "the most important educational question of the time is that as to manual training in the common schools," we recognize the fact that this little leaflet places the argument for manual training on a sound and proper basis, on the only basis in fact which can entitle it to admission into our common school system. It distinguishes sharply between manual training as an adjunct to mental training, and instruction in trades. To quote the words of the leaflet, "the argument is a purely psychological or educational one, and takes no account of the social and economic benefits that are known to result from manual training. Though these benefits are great, it is obviously out of place to urge them as other than addenda to the main argument. Many persons erroneously lay the greatest stress on the social and economic benefits referred to, and thus confuse the argument for technical education with the argument for manual training in the public schools. * * * * Even those teachers and others who advocate manual training are not always clear as to what it means. They often speak of substituting manual training for mental work. This is incorrect. The substitution is of one form of mental work for another. Manual training in the sense in which it is here used, is mental training. It is a training of the mind to accuracy of perception and truthfulness and readiness of expression. If manual training were non-mental and non-disciplinary it could have no proper place in the public school course. The schools are not established for the purpose of teaching pupils how to make a living, but to teach them how to live. They are not to teach trades but to educate."

These three last sentences are worthy of being printed in letters of gold, and should ever be before the eyes and in the mind of all who venture to speak of manual training, whether they are arguing in its favor or in opposition to it. If public sentiment could once be brought to an appreciation of the great truth that it is more important to teach the young how to live than how to get a living, all the educational questions of the day would be greatly simplified.

For our own satisfaction and in order to give our readers some idea of the present standing, growth and tendencies of collegiate education, we have written to all the colleges in New England and New York as well as to the leading colleges in other states asking for information as to the number of students this year and their distribution in the various departments. Answers have been received from the following colleges, and we have undertaken to tabulate them below in such a manner as to indicate the result. Yale, Harvard and Cornell are omitted from the list, inasmuch as last month we gave statistics from these colleges somewhat more in detail. Bryn Mawr does not appear in the list, but in a foot note we print a letter from President Rhoads, which needs no explanation. Our attention has also been called to the fact that owing to special circumstances the figures given under Vassar do not convey a correct impression. The colleges not appearing in the list are those from whom statistics have not been received.[*]

BRYN MAWR COLLEGE,
BRYN MAWR, PA., NOV. 18, 1887.

[*] *Editor of* THE ACADEMY:

The whole number of students enrolled is	79
Admitted this autumn	34
Of these there were on fellowship	4
" " other graduates	5
Students usually classed as "freshmen"	25

As students are allowed one year to decide upon their choice of major courses, it is impracticable to state how many may elect Greek and Latin as their major studies.

Last year the enrollment was	63
Admitted in autumn 1886	26
Of these there were on fellowships	4
" " other graduates	3
" " freshmen	19

The nearest I can come to answering your other queries is to state the number of students that up to the end of last academic year had made choices of major courses: By forty-six students that entered in the years 1885 and 1886, the following major courses have been selected: Greek and Latin, 15; Greek and English, 1; Greek and Mathematics, 4; Latin and English, 1; Latin and German, 1; English and French, 1; German and French, 4; Mathematics and Physics, 1; History and Political Science, 5; Chemistry and Animal Biology, 9; Chemistry and Vegetal Biology, 1. Thus it appears that of 26 who chose two languages in combination, 15 took the two ancient ones, 8 took modern ones, and 3 combined an ancient and a modern language. The proportion selecting Physics would doubtless have been larger had there been a department of Physics during the first two years of the College.

I am yours respectfully,
JAMES E. RHOADS.

	Freshman Class.					
	Classical.		Other Departments.		In College.	
	'86.	'87.	'86.	'87.	'86.	'87.
Bates College	27	50				137
Bowdoin College	38	59			137	176
Colby University	33	35			118	119
Dartmouth College		61		31		334
Middlebury College	19	11	3	6	52	63
Amherst College	58	79	10	14	330	348
Boston University		40		10	163	165
Harvard College	262	264	1	3	984	997
Tufts College	15	13	9	13	112	107
Wellesley College	95	88	72	89	415	614
Williams College	92	70	3	4	289	282
Brown University	58	52	18	26	242	260
Trinity College	23	23	9	15	103	112
Rutgers College	24	29	18	30	123	152
Columbia College	68	76	8	2	236	229
Hamilton College	42	35				147
Hobart College	7	10	14	14	66	71
University of Rochester	32	32	14	22	145	151
Syracuse University	16	34	14	46		209
Vassar College	12	6	40	41	294	285
Swarthmore College	16	18	30	59	123	169
La Fayette College	30	34	39	57	247	267
University of Penn	38	25	26	44	361	323

The November number of *The Nineteenth Century* is unusually interesting. It opens with an article on International Copyright by R. Pearsall Smith of Philadelphia, which is commented upon by Mr. Gladstone, Hallam Tennyson, the Duke of Argyll, Archdeacon Farrar, Rider Haggard, Lewis Morris, Justin McCarthy, Sir Thomas Farrer, Walter Besant, Matthew Arnold, Professor Huxley, and Messrs. Kegan Paul, Trench & Co. Whether or not it furnishes a practical solution of the international copyright question, it is of undoubted value as giving the opinions of twelve foreigners who have had some opportunity to know what they are talking about. In an article entitled "Science and the Bishops," Professor Huxley calls attention to three recent sermons at Manchester by the Bishops of Carlyle, Bedford and Manchester. Whatever view one may take of Mr. Huxley's opinions the opinions themselves are thoroughly readable. Of special interest to teachers are the articles on Medical Women by Dr. Sophia Jex-Blake, and the Nerve-Rest Cure by James Muir Howie. In "Can English Literature be Taught?" J. Churton Collins calls special attention to the failure of this subject in our schools to obtain the objects for which it is taught. The upshot of what he has to say is that philology is threatening to choke the study of literature proper by cumbering it with too much of what goes now-a-days under the name of linguistic scholarship. The writer sees that the same fate that has befallen the classics awaits English studies also unless these can assert their independence of the routine methods that have already got their clutch upon them. Teachers of English in this country will feel the force of his arguments, and we believe will note his illustrations with entire sympathy. Yet the case is by no means so bad with us as it seems to be on the other side of the ocean.

In the first place, we have not yet gone quite so far as have English educators in magnifying the importance of examinations, and in allowing examination convenience to determine our methods. Of marking and ranking we have already quite enough; but much freedom is yet left to American teachers, and very few of us, either in school or in college, are restrained of any desirable freedom in deciding upon the method and direction of our teaching.

Secondly, our strong defenders of the classics as they are and always have been, are not so wholly given up to admiration of classical procedures as are their transatlantic brethren in the faith. American college graduates have generally a far greater variety of intellectual equipment. The classical discipline counts in them far much less both absolutely and relatively. They are freer men; freer, that is, from prepossessions and traditions.

Hints for a methodic in English literature may come from nature as well as from ancient school procedures with other literatures. How do children and nature-peoples enjoy literature? How do they read? What do they remember and respect? What does a nation love and make its own? To consider these questions and others of the same tenor is to approach the work of forming a methodic in literature from the natural side. How have we attained our past success in teaching Greek and Latin literature? What works in Greek and Latin have we observed that our youth and maidens read most eagerly in their free hours? By what processes have we been wont to make the difficult passages clear to the juvenile mind? To consider such questions as these is to approach the formation of our methodic in English literature from the side of scholastic tradition.

As yet we are groping our way. To what we shall ultimately attain cannot now be wholly foreseen. But that the literature teaching of the future will not be like the classical teaching of the past; that we shall not read our English authors in minute portions, smothered with learned notes; that English speaking youth will be trusted to understand the literary language without the special knowledge that the philologist *might* impart; all this seems to us, in view of the good sense of American educators, altogether safe to predict.

*BOOKS RECEIVED.**

Outline for the Use of Instructors and Teachers in Rensselaer Co., N. Y., at the teachers' institute, commencing November 14, 1887. Prepared by J. Russell Parsons, Jr.

Rote Songs of the Normal Music Course, with accompaniments for the pianoforte. By John W. Tufts. New York, Boston, Chicago and San Francisco: D. Appleton & Co. 1884.

Complete German Manual for High Schools and Colleges. By Wesley C. Sawyer, Ph.D., Author of "A Practical German Grammar." Chicago: John C. Buckbee and Company. 1887.

The Planetary and Stellar Worlds. A Popular Exposition of the Great Discoveries and Theories of Modern Astronomy. By Gen. O. M. Mitchell. New York: John B. Alden, Publisher. 1887.

A New Part-Song and Chorus Book for High Schools, Academies, Choral Societies and Families. By Charles E. Whiting, formerly teacher of music in the Boston Public Schools. Boston: D. C. Heath and Company. 1887.

The Normal Music Course. High School Collection. By John W. Tufts and H. E. Holt. Silver, Rogers & Co., publishers, 50 Bromfield Street, Boston. New York: 9 Bond Street. Chicago: 122 & 124 Wabash Avenue. 1887.

How to Teach Vocal Music. The Teacher's Eclectic Manual and Course of Study in vocal Music for Public Schools and Classes. By Alfred Andrews, Professor of Music. New York: Fowler & Wells Co., publishers, 775 Broadway. 1887.

First German Reader on the Cumulative Method. By Adolphe Dreyspring, Author of "The Cumulative Method," "The German Verb Drill," "Easy Lessons in German," "Easy Lessons in French." New York: D. Appleton and Company. 1887.

Studies in Civil Government. By William A. Mowry, Ph.D., Editor of "Education," and for twenty years senior principal of the "English and Classical School," Providence, R. I. Boston: Silver, Rogers & Co., Publishers, 50 Bromfield Street. 1887.

The Normal Music Course. A series of exercises, studies and songs, defining and illustrating the art of sight reading; progressively arranged from the first conception and production of tones to the most advanced choral practice. Third Reader. For Mixed Voices. By John W. Tufts and H. E. Holt. Boston: Silver, Rogers & Co., publishers. Toronto: Canada Publishing Company (Limited). 1887.

Primary Methods. A complete and Methodical Presentation of the use of Kindergarten material in the work of the primary school unfolding A Systematic Course of Manual Training in connection with Arithmetic, Geometry, Drawing, and other school studies. By W. N. Hailmann, A. M., Superintendent of Public Schools, La Porte, Indiana. Copyright, 1887. New York and Chicago: A. S. Barnes & Co.

This book is a direct and practical outcome of a desire to help primary teachers in the preparation and use of "Busy work" adapted to Kindergarten teaching. After the opening chapters the author goes straight about his task, giving plain, specific directions, supplemented by pictures. He considers the questions of theory, as settled and concerns himself only with those of practice.

*Any of these books may be more fully noticed hereafter.

Animal Life in the Sea and on the Land, a Zoology for Young People. By Sarah Cooper. Illustrated. New York: Harper and Brothers. 1887.

In making this book for young people, the author has not made it puerile. It is on the whole admirably done. Usually accurate, always clear and readable, it is well fitted to form an introduction to a study at once necessary to every intelligent child and fascinating alike to old and young when properly presented. The writer is plainly a practical teacher, and her evident intention to undertake only what she clearly sees her way to accomplish appears in every chapter.

Beginning with the lowest forms of animal life, the author advances in sixty brief chapters to the highest organizations. Sound judgment is displayed in devoting much space to the lower orders. The work is profusely illustrated, the 278 wood cuts being for the most part excellent.

Introductory Steps in Science for the use of schools. By Paul Bert, Member of the Institute, and ex-minister of instruction of France. Translated by Marc F. Vallette, LL.D., principal of Grammar-school No. 31, Brooklyn, N. Y. Revised and enlarged by John Mickleborough, Ph.D., principal of Grammar-school No. 9, Brooklyn, N. Y., and formerly principal of Normal school, Cincinnati, Ohio. New York: D. Appleton and Company. 1887.

This work is made up of seven parts, arranged as follows: Part I. Animals; II. Plants; III. Minerals and Rock Formations; IV. Physics; V. Chemistry; VI. Animal Physiology; VII. Vegetable Physiology. Parts I., II., III., may be had bound together in a separate volume. So may Parts IV., V., VI., VII.

As the whole book, index included, contains only 363 pages, it will be seen that the treatment of each part must necessarily be brief. It is popular rather than technical, keeping in the back-ground all show of learning, and endeavouring primarily to create interest. It is intended to cultivate the powers of perception, observation and reflection. The original work in French had an enormous sale, and in many respects, particularly in the illustrations the present edition is decidedly superior to the original. The paper, print and engravings leave little to be desired.

Industrial Education, A Guide to Manual Training. By Samuel G. Love, Superintendent of the Jamestown, N. Y., Public Schools, assisted by Mary R. Willard. With many Illustrations by Vesta Willard. New York and Chicago: E. L. Kellogg & Co., 1887.

Supt. Love is a genuine pioneer in this country in the matter of Manual Training. Years ago almost the first thing we learned about the Jamestown schools was in connection with the experiments in manual education. The book before us is a simple unpretentious setting forth of the work in the Jamestown schools, prefaced by a chapter on "the Claims of Manual Training." We fully believe in manual training in the public schools, but we believe in it for its educational value, not because it will aid pupils afterwards to get a living. *That* we do not think is the province of the public schools. We know many people will differ from us here. There are two theories held at the present day, one that it is the business of the State to support the people, the other that it is the business of the people to support the State. We prefer the latter. We would have children taught the duty of getting a living and leave the means to the efforts of the individual. If the other alternative is adopted all children must be offered equal advantages, *i. e.*, all trades must be taught in school. If Manual Training is to be introduced to enable pupils afterwards to get their living we are opposed to it root and branch. If it is to be introduced as an educational assistant in developing mind and body, as a means of showing children the delight of producing things and bringing them into fuller appreciation of those who produce and the things produced as well, as a training to eye and hand and sense of beauty, as a useful variation to the routine of school, we shall welcome its coming. If it be introduced in any place as a solution of the vexed questions of the so-called laboring classes it will prove a delusion and a snare. If it be made a proper part of the general education which, for its own safety and welfare, the State should give to every child, it will work no miraculous changes, but it will form a valuable help.

Elementary Psychology and Education, a text-book for High Schools, Normal Schools, Normal Institutes and Reading Circles, and a Manual for Teachers. Joseph Baldwin, Principal of the Sam Houston State Normal School, Huntsville, Texas. New York: D. Appleton & Co.

This is the sixth volume of the International Education series.

The editor in his preface seems carefully to avoid speaking of the book He does tell us however that "the aim of the author is to familiarize beginners with the technical nomenclature and useful discriminations used by writers of our day in teaching this theme." This may have been his aim, as to how far he has succeeded, the book shall speak for itself. The following statements are quoted from it :

"Two of the 'powers' or 'capabilities of the mind' are memory and attention." (p. 5.)

"The office of memory is to recall."

"The office of attention is to direct or energize mental effort." (p. 5 & 6.)

"If the mind were a school, attention would be the teacher." (p. 5.)

"Attention *is distinguished from the other mental powers* by two marked characteristics : (1.) It is the power to concentrate effort. (2.) *It accompanies all mental activity*." The author immediately adds that "*like memory and consciousness* it is in some degree present in all knowing and feeling and willing. (p. 6.)

"There are two kinds of attention, attracted and purposed." (p. 14.)

"There are also two kinds, inner and outer." (p. 7.)

"Inner attention is self attending to what is going on *within*," as "when I concentrated my powers *on a problem*." (p. 7.)

"Good memory means close and continued attention." (p. 11.)

"Gentle pleasure, present and prospective, *fixes and holds attention*." (p. 12.)

"*Forms* of attention," (p. 5.) "*Offices* of attention," (p. 14.) are used as synonymous expressions.

"Attention is a capability of the mind." (p. 5.)

"Attention is a power of the mind." (p. 6.)

"Attention is a power of self-direction." (p. 6.)

"*Instinct* moves the coral to *build* islands." (p. 16.)

"Instinct is conscious activity."p. (17.)

"Instinct is blind feeling." (p. 17.)

"Instinct is a simple mental energy." (p. 20.)

"Each instinct is an original endowment." (p. 21.)

"*All mental energies* are inborn endowments." (p. 22.)

These quotations are sufficient to show the careless manner in which language is used concerning the science which, perhaps, more than any other needs the most caution in nomenclature and definitions. Carelessness and haste are seen all through the volume.

The following sentence (p. 11.) is worthy of Philip II. : "No man can be so much of a man in any one direction as when he is a whole man in that direction." One earnest caution : In casting about for illustrations the author has, twice at least, within six pages before p. 22, suggested topics which cannot be handled and should never be mentioned in any school. This alone should put every teacher on his guard against the book—(Pages 209 and 213 should be sufficient to shut it out from every boys' and girls' school).

A. C. B.

The Leading Facts of English History. By D. H. Montgomery. Revised Edition. Ginn & Company. Boston: 1887.

A former edition of this work was reviewed in THE ACADEMY, April, 1886. The present one has been enlarged until it contains more than twice as many pages as the former, and a circular accompanying it says that the proofs have been read by two high school principals, and by two college professors of history. We are therefore prepared to find all the mistakes of the former edition corrected, and the book much improved in every way. Our first impression is altogether favorable. The book has a beautiful page and the *feel* as well as the sight of it is pleasant. Numerous maps have been added and they all seem well done. They form a valuable feature, for without suitable maps the study of history is pursued at great disadvantage. A somewhat careful reading, however, forces upon us the conviction that except for the maps, the book has not been greatly improved. We still find mistakes in it which might easily have been avoided, e. g. On page 2 "What we know to-day as England was at that time an Eastern projection of the continent." Page 128, "The English archers, on the other hand, had kept their long bows under their coats, so that the strings were dry and ready for action." Page 153, "Douglas was taken prisoner, 'Hotspur' was killed and his father beheaded as a traitor just after the battle." Page 368, 1858 is given as the date of the first Atlantic cable, no mention being made of the fact that the first successful permanent cable came eight years later. Page 308, "The present method of government dates from this reign (George I)."

Such mistakes as these are not of great importance, but accuracy is a desirable feature, even in details. There is often apparent in the book a sort of sentimentalism which prompts the author to do something more than simply present the facts, and it not unfrequently happens that the opinions seem to have been derived from literary rather than historical sources. The prime defect of the work, however, comes from a lack of the sense of historical perspective. Unimportant events and details often have as much prominence as important ones. A single instance may serve to illustrate this point, and at the same time to show how little the author is confined to what is announced as the subject of discussion. On page 168 occurs a paragraph entitled "Edward's Character." "The king, however, cared more for his pleasures than for literature or the welfare of the nation. His chief aim was to beg, borrow, or extort money to waste in dissipation. The loans which he forced his subjects to grant, and which were seldom, if ever, repaid, went under the name of 'Benevolences.' But it is safe to say that those who furnished them were in no very benevolent frame of mind at the time. Exception may perhaps be made of the rich and elderly widow, who was so pleased with the king's handsome face that she willingly handed him twenty pounds (a large sum in those days); and when the jovial monarch gallantly kissed her out of gratitude for her generosity, she at once, like a true and loyal subject, doubled the donation. Edward's course of life was not conducive to length of days, even if the times had favored a long reign. He died early, leaving a son, Prince Edward, to succeed him." On the other hand there is no mention of the manner of the death of Richard I, or even a suggestion that he died at all, although just before the author had found space for the story that Blondel had carried to England the news of Richard's captivity. We look in vain for the names of the seven men who invited William of Orange to England in 1688, although there are many less important names mentioned in connection with events of far less interest.

Graded German Lessons, being a Practical German Grammar, by William Eysenbach. Revised and largely re-written, with notes to the exercises, reading lessons and vocabularies. By William C. Collar, A. M., Head Master, Roxbury Latin School. Boston: Ginn & Company. 1887.

In preparing the present edition Mr. Collar pursues a happy mean between the extreme "natural method" on the one hand and the extreme of technical grammar on the other. He has retained the general outline of the original, but has given it a more systematic arrangement, and made several valuable additions.

The plan of the book is as follows: At the beginning of each lesson stands a sentence, or several connected sentences, in German, followed by a translation into idiomatic English. The principles thus illustrated form the subject of the lesson. Thus in the first lesson is given the sentence, *Der Bruder hat einen Ring verloren*, and the pupil learns the accusative termination of the article, and the position of the adverb and of the participle of a compound tense in a simple declarative sentence. Accompanying each lesson are several sets of English and German exercises for translation. The first of these sets puts into use the words and forms of the model. The others introduce new words and combinations ringing the changes on the newly acquired rules of grammar. The last exercise is usually a frame work for conversation. These exercises form a valuable feature of the book. They accord well with the progress of the pupil, and are calculated to impress firmly on his mind the vocabularies and rules of each lesson.

Mr. Collar retains the model sentences given by Eysenbach, but he reduces to comparative order the rather chaotic arrangement of the parts of speech. He does not treat of them exhaustively in succession, but he classifies them on a more scientific basis and gives the inflections more as a whole than does Eysenbach, while he retains the natural and progressive order in dealing with them. Nouns are classified as strong or weak in the matter of declension, the former being subdivided into three classes, according to their plural terminations.

The notes and observations are not so often in the shape of explicit rules as in that of suggestions which will lead to independent thought on the part of the pupil, and offer to the teacher avenues of escape from the old routines. He constantly suggests the comparison of the various forms of one tense or mood with another, or of the strong declension or conjugation with the weak. A valuable addition to the original is found in the groups of sentences which illustrate and compare the various uses of certain classes of words.

The notes on the exercises are mostly original with the revision. By cross references, by reminders of some law already learned, or by a leading question, they usually anticipate, in an exceptionally happy manner, the difficulties of the learner.

The revision introduces several selections from German prose and poetry—an excellent addition to the original work. It is hardly to be expected that in the great range offered by German literature any one should make a selection that would command universal approval. Still we think the translation of *Lorelei* (page 214) which the pupil is requested to learn, hardly pre-eminent enough among translations of German lyrics to entitle it to the special honor here given it.

It is certainly high praise to say that the present revision is a vast improvement on the original work. This improvement is shown in many ways. First of all in the outward appearance, paper, type, press-work, and general appearance of the page. Secondly in the more methodical and scientific arrangement of the matter. Thirdly in the systematic paragraphing, and the orderly disposition of notes. The vocabularies at the end are an important and valuable feature. In brief, Mr. Collar seems to have retained all that was best in an excellent work, and to have greatly improved it by his judicious additions and his more scientific and systematic arrangement.

The Elements of Political Economy with Some Applications to Questions of the Day. By J. Laurence Laughlin, Ph. D., Assistant Professor of Political Economy in Harvard University. New York: D. Appleton & Co. 1887.

Writing is evidently easy for Prof. Laughlin, for within a very few years we have had several works from his pen. Besides the "History of Bimetallism in the United States," he has published a book on "The Study of Political Economy," made up chiefly of articles contributed to periodicals, and an edition of Mill's "Principles," designed as a text-book for colleges. The present work is intended for use in high schools and academies. The author follows the advice he has given other teachers, by making use of numerous diagrams to illustrate the text. The diagrams and much of the other material are drawn from the edition of Mill. The combination in the latter book was not especially happy. Mill's work is not suited for use as a text-book, except as a starting point for an extended course of study, and when so used had better be taken as a whole. In the present work Prof. Laughlin shows that he is more successful in a text-book entirely of his own making. The book seems well suited to the needs of high schools, where considerable time is given to the study, and will serve the purposes of the general reader, who wishes to begin the study of the subject at the beginning.

In the present state of economic science, one can hardly expect to agree with all the details of any statement of even the elements of the subject. Prof. Laughlin devotes Part I. to a discussion of principles, adopting the usual divisions of production, exchange and distribution and following in the main the lines laid down by Mill with the modifications of Cairnes. More facts and less theory might have been given to advantage, for the reason that the readers for whom the book is intended are much more interested in the concrete than in the abstract. For example, a boy will remember that one-third more gold was produced in the thirty-five years following 1850 than in the three hundred and fifty years preceding and forget what is meant by reciprocal demand. Some minor points may be mentioned. Misunderstanding may arise from the wording of the statement of the law of diminishing returns, the fact that production is the creation of value rather than the making of things is not emphasized, and no *proof* seems to have been given of the tendency of population to increase faster than subsistence. But taken as a whole the statement is clear and well proportioned. The exercises at the close of each chapter will add considerably to the usefulness of the book for class use, by getting students to think. Take the following as illustrations:

"What is the difference between the cause of the existence of value and a measure of value?

"In the middle ages a twig or a clod was handed by the seller to the buyer as a sign that the ownership of property was transferred. Was there any likeness to paper money in the procedure?

"Let the members of the class be supposed to deal with three banks. Let each member make out a check. Then form a clearing house and strike a balance between the various banks."

Prof. Laughlin devotes Part II. to what he calls descriptive political economy. This includes the applications of principles, which some writers call applied economy and others the art of economy. The statement of the principles of taxation should leave no one in doubt as to how the national revenue ought to be reduced. An outline of the arguments on both sides of the tariff question is given. The chapters in this part on taxation, the national debt, free trade and protection, bimetallism, United States notes, and national banking are perhaps the best and most useful in the book. So much of them relates to finance that the title might very well have read "Elements of Political Economy and Finance." Other chapters treat of socialism, the labor problem and co-operation.

The principal criticism upon Prof. Laughlin is that he has omitted entirely the historical side of political economy. There is nothing in the book to show that his description of industrial society will not hold good for all times and places. The so-called "new school" have by no means revolutionized the science, as some of them seem to think, but they have called attention to an important and much neglected phase of it. It is well to appreciate the fact that the wages system is a stage in industrial development and may sometime in the future give place to another system as other systems gave place to it in the past. There is nothing absolute or necessary about it. The only solution that Prof. Laughlin finds for the labor problem, aside from a suggestion of industrial education, lies in the development of Christian character. This is something entirely beyond the field of economics. Similarly certain clerical students of economy have found in the golden rule a panacea for all social evils. If Christian character were fully developed and the golden rule strictly observed, we should not have a labor problem, we should not need a system of taxation, but could trust every citizen (as they are said to have done in Bremen) to drop into an urn what he ought to contribute to the expenses of government, if indeed we needed a government. But, unfortunately, people will not observe the golden rule of their own accord, and cannot be compelled to do so by legislation. It is the business of economics to suggest such means as will enable production to continue, under existing circumstances, with the least possible friction and to the advantage of all classes. Prof. Laughlin's treatment of the labor problem is closely connected with a statement he makes in the preface. "It is clear," he says, "that the principles of economics, when ultimately analyzed, are expressions of Christian truth." The principles which Prof. Laughlind iscusses in Part I. are most of them physical facts, and no more expressions of religious truth than the law of gravitation. Religion and ethics have their place in industrial society as in all the other relations of life, but it is not at all clear in what sense the principles of economics are expressions of Christian truth. Science and religion are distinct and best kept apart.

The greatest drawback to the teaching of political economy in the public schools lies in the want of preparation for the work on the part of teachers. The list of books that Prof. Laughlin gives as "A Teacher's Library" is not such a library as most teachers in high schools, where this book is to be used, will need. A teacher who will use Schonberg's "*Handbuch*," will not need to be referred to it. A high school teacher could not afford and would not need Tooke and Newmarch's "History of Prices." Titles of elementary books, which would be much more useful, are omitted. It might perhaps have been well to have added specific references to most of the chapters for the guidence of teachers. High school teachers may sometime be economists, but as a rule they are not now.

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